National Energy Board
Office national de l'énergie

Reasons for Decision

Emera Brunswick Pipeline Company Ltd.

GH-1-2006

May 2007

Facilities and Tolls and Tariffs

Canada

National Energy Board

Reasons for Decision

In the Matter of

Emera Brunswick Pipeline Company Ltd.

Application dated 23 May 2006 for a Certificate of Public Convenience and Necessity under section 52 of the *National Energy Board Act* authorizing Emera Brunswick Pipeline Company Ltd. (EBPC) to construct and operate the Brunswick Pipeline, an Order under Part IV of the NEB Act approving the tolls for the Brunswick Pipeline and an Order designating EBPC a Group 2 company.

GH-1-2006

May 2007

2007-03956/

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Approximate Conversions

1 metre (m) = 3.28 feet

1 kilometre (km) = 0.62 miles

1 cubic metre (m^3) = 35.3 cubic feet

1 gigajoule (GJ) = 0.95 million Btu (MMBtu)

1 decatherm (Dth) = 1.0 MMBtu

1 hectare (ha) = 2.47 acres

1 000 kilopascal (kPa) = 145 psi

1 000 cubic metres (m^3) = 38.86 gigajoules

Abbreviations

AFUDC	allowance for funds used during construction
Anadarko	Bear Head LNG Corporation, Anadarko Canada LNG Marketing, Corp. and Anadarko LNG Marketing, LLC
Bercha QRA Report	"Quantitative Risk Analysis of the Proposed Brunswick Natural Gas Pipeline" prepared by Bercha International Inc.
Bercha	Bercha Engineering Limited
CE Advisors	Concentric Energy Advisors
CEA Act	*Canadian Environmental Assessment Act*
CEA Agency	Canadian Environmental Assessment Agency
CMA	Census Metropolitan Area
Crossing Regulations	*National Energy Board Pipeline Crossing Regulations*
CSA	Canadian Standards Association
CSA Z662-03	CSA standard Z662-03, *Oil and Gas Pipeline Systems*
Dth/d	decatherm per day
DEGT	Duke Energy Gas Transmission
de Stecher Study	"Impact of Natural Gas Pipelines on the Value of Residential Real Estate" prepared by de Stecher Appraisals Ltd.
EA	environmental assessment
EBPC or the Applicant	Emera Brunswick Pipeline Company Ltd.
EGNB	Enbridge Gas New Brunswick
EMO	emergency management organization
EPM	emergency procedures manual
EPP	environmental protection plan
EPRP	emergency preparedness and response program
EPZ	emergency planning zone
ERP	emergency response plan

FA	federal authority
FORP	The Friends of Rockwood Park
FSA	firm service agreement
FTE	full-time equivalent
GDP	gross domestic product
Government Response	Response of the Government of Canada to the EA Report
HDD	horizontal directional drilling
Imperial	Imperial Oil Resources and ExxonMobil Canada Ltd.
IPL	international power line
Irving Oil	Irving Oil Limited
J.D. Irving	J. D. Irving, Limited
km	kilometre
KP	kilometre post
kPa	kilopascal
LDC	local distribution company
LNG	liquefied natural gas
LOC	letter of commitments
m	metre
MJ/m^3	megajoules per cubic metre
M&NP US	Maritimes & Northeast Pipeline, L.L.C.
M&NP	Maritimes & Northeast Pipeline Management Ltd.
MDTQ	maximum daily transportation quantity
mm	millimetre
MPa	megapascal
NB	New Brunswick
NB ESA	*New Brunswick Endangered Species Act*
NB Power	New Brunswick Power Transmission Corporation

NEB Act	*National Energy Board Act*
NEB EA Report	National Energy Board Environmental Assessment Report
NEB or Board	National Energy Board
NSDOE	Nova Scotia Department of Energy
OD	outside diameter
OPR-99	*Onshore Pipeline Regulations, 1999*
Pembina Infrastructure Report	"Impacts of the Proposed Brunswick Pipeline on Municipal Infrastructure Maintenance Costs in Saint John" prepared by Pembina Institute
PPV	peak particle velocity
(the) Project	the proposed Brunswick Pipeline Project
RA	responsible authority
Repsol	Repsol Energy Canada Ltd.
RoW	right of way
SARA	*Species at Risk Act*
SCADA	supervisory control and data acquisition
SJFD	Saint John Fire Department
SJFD Risk Analysis Report	Risk Analysis report prepared by the Saint John Fire Department
SJL	Saint John Lateral
SOEP	Sable Offshore Energy Project
St. Clair	St. Clair Pipelines (1996) Ltd.
TEK	Traditional Ecological Knowledge
TransCanada	TransCanada PipeLines Limited
TWR	temporary working room
UNBI	Union of New Brunswick Indians
US	United States

Glossary of Terms

alternative means	the various ways that are technically and economically feasible that the project can be implemented or carried out
alternatives to	functionally different ways to meet the project need and achieve the project purpose
assignment of unused capacity	the transfer of the rights and obligations of a transportation contract held by one party - the **assignor** - to another party - the **assignee**
backhaul	either the "physical" transportation of natural gas in the reverse direction of a given pipeline, or a "paper transport" of natural gas by displacement against the flow on a single pipeline so that the natural gas is notionally delivered upstream of the point at which it enters the system
construction	construction includes all activities required to construct the Project, including all clearing activities
cumulative environmental effects	environmental effects that are likely to result from the Project in combination with projects or activities that have been or will be carried out (as defined in the CEA Act)
custody transfer station	a location where the quantity of gas is determined and the amount allocated to each shipper is established
demand charges	a monthly charge that normally covers the fixed costs of a pipeline; the demand charge is based on the daily contracted quantity and is payable regardless of quantities transported
environmental effect	in respect to a project, (a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species as those terms are defined in section 2(1) of the *Species at Risk Act*, (b) any effect of any change referred to in paragraph (a) on health and socioeconomic conditions, on physical and cultural heritage, the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or (c) any change to the project that may be caused by the environment (as defined in the CEA Act)

exchange	transportation of natural gas by displacement over two separate pipelines, each of which takes and retains gas contractually allocated to the other
federal authority (FA)	(a) a Minister of the Crown in right of Canada, (b) an agency of the Government or other body established by or pursuant to an Act of Parliament that is ultimately accountable through a Minister of the Crown in right of Canada to Parliament for the conduct of its affairs, (c) any department or departmental corporation set out in Schedule I or II to the *Financial Administration Act*, and (d) any other body that is prescribed pursuant to regulations made under paragraph 59(e) of the CEA Act (as defined in the CEA Act)
firm transportation	a non-interruptible gas transportation service which provides for the delivery of gas up to a specific maximum daily quantity; the shipper must pay a monthly demand charge regardless of the quantities transported and a commodity charge for the quantities actually transported
Group 2 Company	compared to Group 1 companies, Group 2 companies tend to be smaller and have very few shippers and are therefore subject to a lighter degree of financial regulatory oversight; they are regulated on a complaints basis
horizontal directional drill (HDD)	a river, railroad, highway, shoreline and marsh crossing technique used in pipeline construction in which the pipe is installed under specified no-dig areas at depths usually greater than conventional crossings. An inverted arc-shaped hole with two sag bends is drilled beneath the no-dig area and the preassembled pipeline is pulled through it
interruptible transportation	a gas transportation service provided as capacity is available; the shipper only pays a toll for the quantities actually transported
launcher/receiver site	facilities used to launch and receive pipeline internal inspection and cleaning equipment
load factor	generally, the ratio of the average contract quantity to the maximum quantity available to be contracted for the same period, usually expressed over a year and as a percentage
meter station	a facility to monitor natural gas flow in pipeline systems (i.e., gas entering and leaving the pipeline system); meter stations may also allow for monitoring of natural gas quality

negotiated settlement	an agreement between a pipeline company and interested parties concerning issues related to the company's revenue requirement, tolls, tariffs, and operational matters
open access pipeline	a pipeline that offers non-discriminatory, fully equal access to its transportation services
open season	a process in which a pipeline company offers either existing or new capacity to the market and receives bids for that capacity from market participants
postage stamp toll	for pipelines, a toll that is charged per unit transported regardless of the distance traveled and the points of origin and destination
responsible authority (RA)	in relation to a project, a federal authority that is required pursuant to subsection 11(1) of the CEA Act to ensure that an environmental assessment of the project is conducted (as defined in the CEA Act)
right of way (RoW)	the area which must be cleared (vegetation), crossed (watercourse), or developed (land) for the purpose of installing a pipeline
rolled-in toll	Tolls resulting from a toll design methodology in which the capital and operating costs of new facilities are added to those of the existing facilities; i.e., there is one cost pool for all facilities. Tolls are designed to recover the annual cost of providing service. All shippers who receive the same service pay the same toll. Tolls only vary according to such factors as volume and distance.
shipper	one who contracts with a pipeline for transportation of natural gas
Species at Risk	all species listed in Schedule 1 of the *Species at Risk Act* (SARA) as "extirpated", "endangered", or "threatened", or listed by the *New Brunswick Endangered Species Act* (NB ESA) as "endangered" or "regionally endangered"
Species of Conservation Concern	species not under the protection of the SARA or the NB ESA; that is, listed in the SARA but not as "extirpated", "endangered", or "threatened" in Schedule 1; listed as "species of special concern" within Schedule 1 of the SARA; or ranked as "S1", "S2", or "S3" by the Atlantic Canada Conservation Data Centre and also ranked as "at risk", "may be at risk", or "sensitive" by New Brunswick Department of Natural Resources

swaps	see "exchange" - in the context of this document and application, the term swap is defined synonymously with an exchange transaction
tariff	the terms and conditions under which the services of a pipeline are offered or provided, including the tolls, the rules and regulations, and the practices relating to specific services
throughput	in general, the amount of gas being transported through a pipeline or being processed through a facility over a given period of time
toll	the price charged by a pipeline company for transportation and other services
turn back capacity	a reduction in a shipper's firm capacity commitments on a pipeline

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* and the Regulations made thereunder; and

IN THE MATTER OF an application by Emera Brunswick Pipeline Company Ltd. (EBPC) dated 23 May 2006 for a Certificate of Public Convenience and Necessity under section 52 of the *National Energy Board Act* authorizing EBPC to construct and operate the Brunswick Pipeline, an Order under Part IV of the NEB Act approving the tolls for the Brunswick Pipeline and an Order designating EBPC a Group 2 company, filed with the National Energy Board under File No. OF-Fac-G-E236-2006-01 01 (3200-E236-1); and

IN THE MATTER OF National Energy Board Hearing Order GH-1-2006 dated 9 June 2006;

HEARD in Saint John, New Brunswick on 6 - 11, 13 - 18 and 20 November 2006;

BEFORE:

S. Leggett	Presiding Member
K. Bateman	Member
S. Crowfoot	Member

APPEARANCES:

Applicant:

Mr. Laurie Smith, Q.C. Mr. Nick Gretener Mr. Peter Doig	Emera Brunswick Pipeline Company Ltd.

Companies:

Mr. Bernard Roth	Bear Head LNG Corporation, Anadarko Canada LNG Marketing, Corp. and Anadarko LNG Marketing, LLC (collectively "Anadarko")
Mr. David S. MacDougall	Enbridge Gas New Brunswick
Mr. Ron Moore	Imperial Oil Resources and ExxonMobil Canada Ltd.
Mr. David A. Holgate	(collectively "Imperial")
Mr. James H. Smellie	Irving Oil Limited
Mr. Peter C.P. Thompson, Q.C.	Repsol Energy Canada Ltd.

Mr. Robert Gall	Shell Canada Limited
Dr. Darrell Gallant	504-474 N.B. LTD.

Groups:

Ms. Teresa Debly	Concerned Citizens, Friends of Saint John Community, Teresa Debly and the Estate of A.J. Debly (collectively "Teresa Debly")
Mr. Alan Ruffman	Friends of Rockwood Park
Mr. David Thompson	
Mr. Eugene Gould	
Ms. Anne-Marie Mullin	South Central Citizens Council / House of Tara

Individuals:

Ms. Teresa M. (Terry) Albright	(represented by Mr. Ivan Court)
Ms. Carol Armstrong	
Mrs. Dawn Baldwin	
Mr. Bernard Ball	
Mr. Philip Blaney	
Mr. Michael Burgess	
Mr. Ivan Court	
Mr. Patrick B. Court	
Mr. Charles L. Debly	
Ms. Janet Dingwell	
Ms. Janice Eldridge-Thomas	
Ms. Deborah Fuller	
Mr. Glenn Patrick Griffin	
Mr. Edward Harned	
Ms. Patricia Higgins	

Ms. Frauke Humphrey

Dr. Tom Inkpen

Mr. James L. Laracey

Ms. Betty Lizotte

Dr. Robert Moir

Ms. Frances Oliver

Ms. Joan Pearce

Ms. Yvonne Perry

Mr. Jack Quinlan

Ms. Darlene Richard

Ms. Ernestine Rooney

Mr. Horst Sauerteig

Ms. Linda Stoddard

Dr. Leland T. Thomas

Ms. E. Jean Thompson

Governments:

Mr. Jake Harms	Environment Canada
Mr. Paul Vanderlaan	New Brunswick Department of Environment
Mr. Dan Robichaud	NDP and Dan Robichaud
Mr. Stephen McGrath	Nova Scotia Department of Energy
Ms. Jody Saunders Ms. Marian Yuzda	National Energy Board

Chapter 1

Introduction

1.1 Project Overview

On 23 May 2006, Emera Brunswick Pipeline Company Ltd. (EBPC or the Applicant) applied to the National Energy Board (NEB or Board) for a Certificate of Public Convenience and Necessity under section 52 of the *National Energy Board Act* (NEB Act) authorizing EBPC to construct and operate the Brunswick Pipeline, an Order under Part IV of the NEB Act approving the tolls for the Brunswick Pipeline and an Order designating EBPC a Group 2 company.

The Brunswick Pipeline Project was referred to a review panel pursuant to section 25 of the *Canadian Environmental Assessment Act* (CEA Act). The NEB process was used as a substitute for an environmental assessment by a review panel as provided for under section 43 of the CEA Act. The substitution was approved by the Minister of the Environment and Minister responsible for the Canadian Environmental Assessment Agency (CEA Agency).

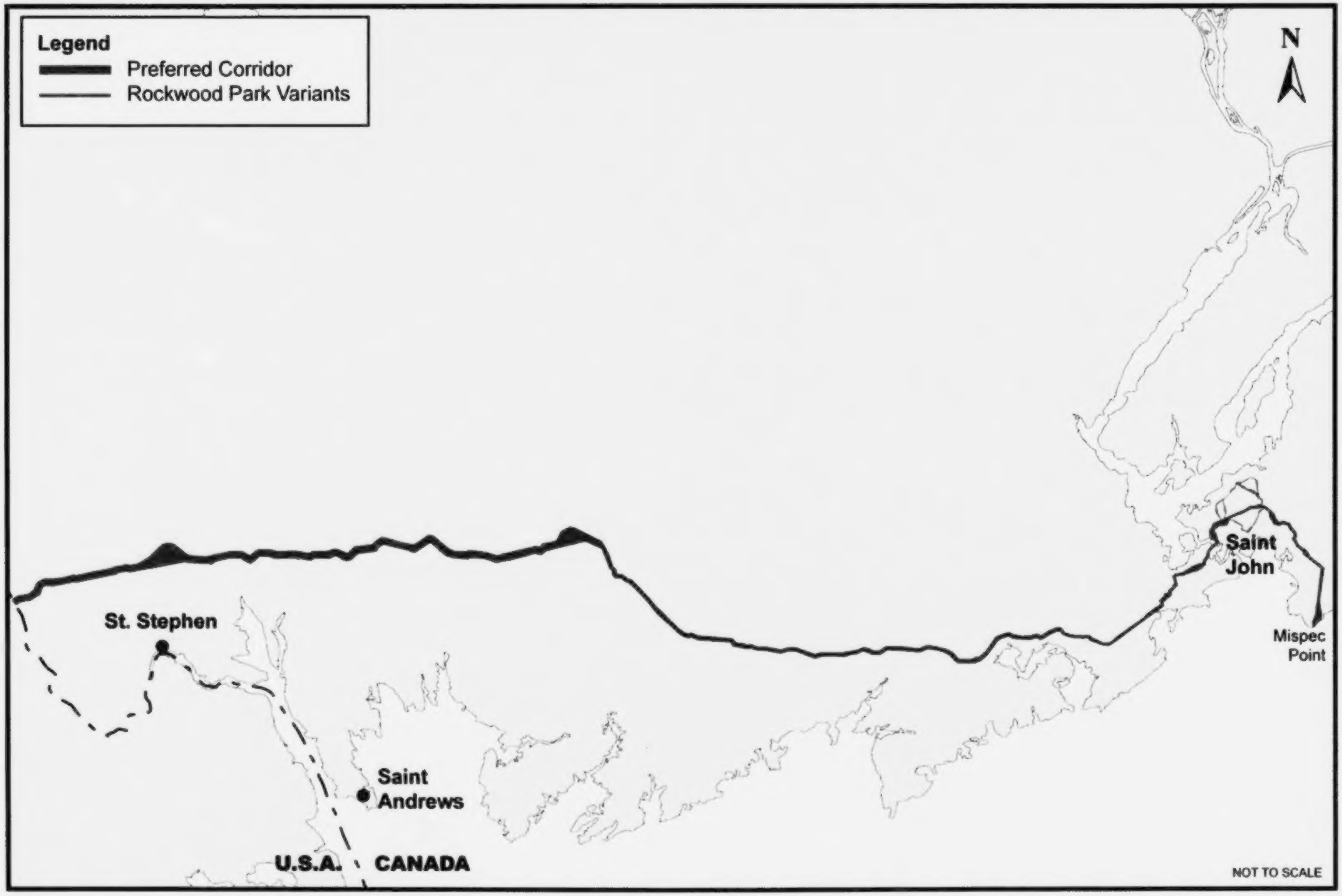
The proposed facilities would consist of approximately 145 km of 762 mm outside diameter (OD) pipeline extending from the Canaport™ Liquefied Natural Gas (LNG) Terminal at Mispec Point, New Brunswick (NB) to a point on the international border near St. Stephen, NB where it would interconnect with Maritimes & Northeast Pipeline, L.L.C. (M&NP US) (see Figure 1-1). The total capacity of the Brunswick Pipeline would be approximately 900 000 gigajoules per day (GJ/d) with a receipt pressure of 9 930 kPa at the interconnection with the Canaport™ LNG Terminal and a delivery pressure of 6 909 kPa at the interconnection with M&NP US. EBPC expects that the sales gas would have a heat content of 38.86 MJ/m^3.

EBPC proposes to begin construction clearing in late 2007, followed by pipeline construction to meet a target in-service date of 1 November 2008.

The Applicant estimates the total capital cost of the applied-for facilities to be approximately $350 million (see Appendix III for details).

EBPC and Repsol Energy Canada Ltd. (Repsol) have signed a Firm Service Agreement (FSA) for the firm transportation of 791 292 GJ/d on the Brunswick Pipeline for a term of 25 years. In addition to the FSA, the parties have executed a 25-year toll agreement obligating Repsol to pay all fixed charges applicable to the Brunswick Pipeline over the first 25 years of operation, including an investment return.

Figure 1-1
Emera Brunswick Pipeline Project


Legend
Preferred Corridor
Rockwood Park Variants
N
St. Stephen
Saint Andrews
Saint John
Mispec Point
U.S.A.
CANADA
NOT TO SCALE

1.2 Environmental Assessment Process

The substitution provisions in section 43 of the CEA Act allow a federal authority (FA), with the approval of the Minister of the Environment, to use its own process for assessing the environmental effects of a project as a substitute for an environmental assessment (EA) by a review panel under the CEA Act. In the case of the Brunswick Pipeline Project, the Minister's approval allowed the NEB's public hearing process to substitute for an EA by a review panel under the CEA Act. The requirements for the substituted process were set out in correspondence among the CEA Agency, the NEB, and the Minister of the Environment. This correspondence and the scope of the EA are included in the NEB's EA Report, attached in full as Appendix VII to these Reasons.

Under the CEA Act, the Board conducted a review of the environmental effects of the Project and the appropriate mitigation measures. The Board's conclusions and recommendations, including mitigation measures, follow-up programs and its rationale, are set out in the NEB's EA Report. The EA Report also provides a summary of comments received from the public. The EA Report was released on 11 April 2007 and forwarded to federal responsible authorities (RAs). The response of the Government of Canada to the EA Report (government response) was coordinated by Natural Resources Canada and was approved by the Governor in Council pursuant to subsection 37(1.1) of the CEA Act on 17 May 2007.

A discussion of the government response is provided in Chapter 6 of these Reasons, and a copy of the government response is provided in Appendix VIII.

The Board took into consideration the EA Report and the government response before making its decision under the NEB Act. The Board's overall conclusion and disposition are provided in Chapter 9 of these Reasons. The conditions for inclusion in the Certificate are listed in Appendix V.

Chapter 2

Role of the Board

2.1 Public Participation

The Board is committed to ensuring that stakeholders are engaged effectively in the Board's public processes.[1] EBPC's application attracted a large public response with more than 70 parties registered as intervenors in the GH-1-2006 hearing, over 180 Letters of Comment received by the Board, and oral statements made by 19 people during the oral portion of the hearing.

As a result of the high level of public interest and the general lack of familiarity with the Board's processes, Board staff held a number of public information sessions and pre-hearing planning sessions to discuss Board processes, but not the merits of the application. In addition, the Board provided a Hearing Order setting out the procedure to be followed in this hearing, and written procedural updates, including one entitled "What Can I Expect at the Hearing" just prior to the oral portion of the hearing, to address common requests for information on the Board's processes or to further explain the oral portion of the hearing process. Throughout the written and oral portions of the hearing, Board staff responded to numerous procedural inquiries by telephone, email and in person. The Board also provided additional guidance to parties on its mandate and its process by way of its frequent rulings on motions made by parties throughout the course of the hearing; a number of these rulings are included in Appendix VI.

To further enable the participation of the public, the Board posted all documents received, to the extent it was technically feasible, on its electronic repository, accessible through the Board's Internet site. During the oral portion of the hearing, the Board viewed all documents being referenced electronically, on screens provided on the sides of the room, to enable the participants to follow the proceedings. The Board provided one hard copy of all exhibits, a computer and a printer in the hearing room for reference and use by participants to the hearing. The Board also broadcast its proceedings live, in both English and French, through its webcast of the proceedings, also accessible through the Board's Internet site. Additional technical or procedural assistance for parties, such as photocopying and blank affidavit forms, was provided by Board staff when requested, to the extent it was possible to do so. The Board also undertook service of intervenors' final arguments on other parties, if requested to do so.

In addition to the Board's activities aimed at ensuring effective public participation, the Board notes that there is also a responsibility upon the participants in an NEB public hearing. That responsibility is to attempt to participate in an effective manner, by following the procedures of the Board, being knowledgeable about the application and issues in the proceeding, providing relevant evidence for the Board's consideration, and, even in the face of disagreement with the position that another party advocates, showing courtesy and respect to all parties involved in the process, as well as to the Board and its staff.

---

[1] The Board has developed five corporate goals to help it meet the challenges it faces in a dynamic energy market and ever-changing regulatory landscape. The NEB's Goal 4 states as follows: "The NEB fulfills its mandate with the benefit of effective public engagement." Effective public engagement is a key component in making certain that the rights of persons affected by the Board's decisions are protected, as it ensures that the Board has all of the relevant evidence it requires prior to making a decision and, consequently, that the principles of natural justice and fairness are met. As a result, effective public engagement also allows the Board to meet another of its Goals, "NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected."

In this proceeding, there was a high level of participation by intervenors, many of whom, though unpaid and unrepresented by counsel, were well-prepared and knowledgeable about the issues to be considered at the hearing.

2.2 Mandate of the National Energy Board

In addition to the activities undertaken by the Board during the hearing, the Board will, in these Reasons for Decision, provide guidance with respect to the role of the Board and its legal obligation to proceed in accordance with the principles of natural justice in considering EBPC's application. In the Board's view, it is especially important in the context of this particular hearing, in which the Board's public hearing process has been authorized to substitute for a review panel hearing under the CEA Act, that all parties clearly understand the responsibility of the Board, as mandated by Parliament and supervised by the courts.

The NEB is an independent federal agency that regulates several aspects of Canada's energy industry. It is a creature of statute, established in 1959 by Parliament by virtue of the proclamation of the NEB Act. The Act transferred to the Board the federal government's responsibilities[2] for pipelines from the Board of Transport Commissioners, and for oil, gas and electricity exports from the Minister of Trade and Commerce. In addition, it granted the Board responsibility for regulating tolls and tariffs, and defined its jurisdiction and status as an independent court of record.

The NEB's purpose is to promote safety, environmental protection and economic efficiency in the Canadian public interest in its regulation of pipelines, international power lines and energy development, within the mandate set by Parliament. As part of its mandate, the Board, as a quasi-judicial tribunal, may hold public hearings in order to hear all sides and points of view prior to making decisions on applications for new facilities that fall within its jurisdiction.

In carrying out its quasi-judicial duties, the Board is bound by its mandate under the NEB Act. In certain instances, such as this one, the Board also has responsibilities under the CEA Act. Under the NEB Act, there is no provision for participant funding. Under the CEA Act, participant funding is authorized, and in this case, a number of intervenors received such funding. As further discussed in the EA Report, attached as Appendix VII, the funding was administered by the CEA Agency, independent of the Board.

As a consequence of it being a creature of statute, the Board can only act within the mandates set out by the Acts pursuant to which it has responsibilities. The Board has no authority to intervene in matters which fall within the responsibility of the provinces, or of the municipalities. Throughout the hearing, the Board was provided with information concerning matters falling within provincial or municipal responsibility, and was made aware of the level of concern and frustration a number of members of the public had with these matters. Although the Board acknowledges that parties have these concerns, such matters are outside the Board's authority as set out in the NEB Act, or under the CEA Act.

---

[2] As defined in the division of powers between the provinces and the Federal government under sections 91 and 92 of the *Constitution Act, 1867*.

The Board is bound as well by the principles of natural justice, under the supervision of the courts of law. These principles have been developed by the courts over centuries, and apply to any public body making a decision that affects the rights, privileges or interests of any person, other than a purely legislative decision.[3] Accordingly, the Board is legally required to adhere to these principles in carrying out its decision-making responsibilities.

Decisions by regulatory tribunals, such as the NEB, are not made by conducting a plebiscite or merely on the basis of a demonstration of public opposition or support. Rather, such decisions are made within a legal framework enacted by the legislature and applied by the courts. This is, of course, the essence of the rule of law.

In this case, part of the applicable legal framework is found in Part III of the NEB Act, section 52 of which requires the Board to make a determination with respect to "the present and future public convenience and necessity", in the Canadian public interest. Part IV of the NEB Act also requires that the Board make certain determinations with respect to tolls and tariffs. The requirement imposed by the courts is that, in making its determinations, the Board must rely only on the facts that are established to its satisfaction through the hearing process, and must otherwise proceed in compliance with the principles of natural justice. The Board must perform its duty on the basis of principle within a structured framework, while following a process that meets the requirements imposed by the courts. The principles of natural justice are further expanded upon in Subsection 2.3, below.

As previously mentioned, in this application, EBPC has applied under two parts of the NEB Act- Part III, Construction and Operation of Pipelines; and Part IV, Traffic, Tolls and Tariffs. The different Parts of the NEB Act require different determinations to be made by the Board. In Part III, under section 52 of that Part, the Board has to make a determination whether the Project is in the present and future public convenience and necessity. Under Part IV, the Board must determine whether the tolls to be charged are just and reasonable, and ensure that there is no unjust discrimination with respect in tolls, service or facilities. Much of the general public's interest in this hearing stemmed from EBPC's Part III application to construct and operate the Brunswick Pipeline. Accordingly, further explanation of how Part III applications are assessed may be informative. This is found in subsection 2.4, below.

The Board is only charged under Part III with determining whether the Project applied-for, involving the preferred corridor, is in the present and future public convenience and necessity. The Board is not able to approve a different corridor, such as one that includes a proposed marine portion of the corridor. However, in determining whether the Project is or is not in the present and future public convenience and necessity, the Board will consider, among other factors, the appropriateness of the general route and general land requirements (Issue 7 of the List of Issues), as well as any public interest that in its opinion may be affected by the granting or refusing of the application (Subsection 52(e) of the NEB Act). Accordingly, further discussion of the marine corridor is contained within Chapter 6 herein, as well as being discussed under the Board's CEA Act mandate in the Board's EA Report, attached as Appendix VII hereto.

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[3] Macaulay and Sprague, *Practice and Procedure before Administrative Tribunals*, (Toronto: Carswell, 2001) [hereinafter "Macaulay"], at p. 9-20.1. Essentially, a purely legislative decision would be one which establishes a standard, norm or rule of conduct binding upon an undetermined number of persons, and which may be driven by policy considerations, Macaulay at p. 9-20.4.

2.3 Principles of Natural Justice

Natural justice has been explained in the jurisprudence as follows:[4]

> The concept of natural justice is an elastic one, that can and should defy precise definition. The application of the principle must vary with the circumstances. How much or how little is encompassed by the term will depend on many factors; to name a few, the nature of the hearing, the nature of the tribunal presiding, the scope and effect of the ruling made.

As a result, the content of the principles of natural justice will vary from case to case. Essentially, what is "fair" requires a balance between what is necessary for the effective and efficient performance of public duties, as mandated under an empowering statute, and what is necessary for the protection of the interests of the parties affected.[5]

Generally, there are two components to the principles of natural justice. First, a party must have an adequate opportunity to be heard before a decision is made affecting that party's interest. The second component is that the decision must be made by an independent and unbiased decision-maker.[6]

Allowing a party an adequate opportunity to be heard before a decision is made affecting that party's interest requires that all parties know the case that is to be met and be provided with the opportunity to respond fully and defend their own position. It also requires that the decision be made on the basis of evidence presented, and not on the basis of perception, impression, anecdote or merely the number of people in opposition to, or in support of, an application. Further, such a decision must be made by an independent decision-maker who is objective and impartial.

Consequently, anyone submitting to the Board an application for a facility with the requisite information has a legal right to a full and fair hearing before the Board. An applicant is then legally entitled to a decision by the Board based on the facts and evidence presented at such a hearing, in accordance with the statutory requirement on the Board under Part III to determine whether an applied-for facility is and will be required by the present and future public convenience and necessity.[7]

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[4] *Tandy Electronics Ltd. v. United Steel Workers of America* (1979), 102 D.L.R. (3d) 126 (Ontario High Court of Justice), per Cory J., at 132.

[5] Macaulay at p. 9-20.9 to 9-20.10.

[6] *Ibid.* at p. 9-20.8(4).

[7] The "public convenience and necessity" test will be discussed further below.

Natural justice also requires, among other things, that notice be given to other parties whose interests may be affected by an application, so that those parties who wish to participate in a hearing to test the applicant's evidence, provide their own evidence, and provide final argument, have the opportunity to do so. The Board's hearing process is designed to meet its legal obligation to comply with the principles of natural justice.

The Board notes that there is a responsibility on parties who wish to participate in a hearing, to do so in a timely manner, and in accordance with the rules established for the hearing. Late attempts to participate or to provide evidence past the deadlines established could not only be disruptive to the process, but, if permitted, could impact the procedural rights of the existing parties. Therefore, the Board was very cautious in determining, on the facts of each request, whether that request for late participation or to file late evidence, in that particular circumstance, may be beneficial to the Board in making its decision, and was not in contravention of the principles of natural justice or unduly prejudicial the rights of other parties.[8]

2.4 Assessing a Facilities Application under Part III, section 52 of the NEB Act

When the Board receives an application to construct and operate a facility, it must initially evaluate whether the application is ready to proceed to a public hearing. The Board does this by assessing the information provided in the application against the information required by the Board's Filing Manual (2004). If the Board is satisfied that the application meets these threshold requirements for the purposes of a hearing, it issues a hearing order. It is not expected that all of the evidence that the Board will require to make its decision will be provided in the initial application to the Board. Instead, one or more rounds of information requests are undertaken. In addition, there are further written filings both by the applicant and by other parties, the eliciting of oral evidence through questioning on the pre-filed written evidence at the oral portion of the hearing, and potentially oral statements made at the oral portion of the hearing, to ensure that the Board has as complete a record as possible upon which to base its decision.

At the end of the evidentiary portion of a hearing, all parties have the opportunity to present final argument based upon the evidence before the Board. Final argument provides parties the opportunity to persuade the Board of their position, based on the evidence that has been previously adduced. It is not the time for providing new evidence, as this would be contrary to the principles of natural justice previously discussed. Sometimes final argument contains statements or comments that are not supported by the evidence on the record. The Board's role in reviewing the evidence and arguments is to ensure that statements and comments made in argument are supported by the evidence on the record, to disregard any statements that are not so supported, and to make its determination based solely on the record. To do otherwise would breach the principles of natural justice.

The Board notes that this level of information is required for the Certificate of Public Convenience and Necessity stage of a project, during which the applicant is seeking approval only for a broad corridor, within which corridor the final, smaller right of way (RoW) and pipeline would be located if the project obtains all of its approvals. It is not necessary that every detail related to a project be put before the Board for the purpose of the Board's determination whether to grant or deny the application for a Certificate. The nature of applications presented to the Board is such that not every detail of a project must be ascertained before a Certificate may be issued; indeed it would be impractical, if not impossible, for all details to be provided in advance.

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[8] For example, in a ruling dated 23 October 2006, the Board set out criteria that it may consider in determining whether to grant requests to file late evidence, late Letters of Comment or late requests to participate [Ruling #10, A-36]. This ruling is included in Appendix VI.

At this Certificate stage of a project, an applicant has the onus of persuading the Board that a Certificate should be issued on the basis of all of the evidence presented during the course of both the written and oral portions of the hearing. While it is up to the applicant to provide evidence in support of its application, intervenors opposing the application are expected to provide some form of evidentiary support for their position. Intervenor evidence may then be subject to the same testing as the applicant's evidence, for example, by cross-examination at the oral portion of the hearing.

The Board notes that prior to a pipeline project being put into operation, there are a number of additional approvals that must be issued and detailed filings required, which involve, for example, the filing of the plans, profiles and books of reference setting out the detailed route of the pipeline, the filing of various detailed construction, operational, and environmental manuals, other filings required as part of condition compliance or to comply with applicable regulations, and approval of a leave to open application. Further information and approvals may also be required by other federal, provincial or municipal regulatory agencies.

In addition, should a project be approved, the Board has the authority and responsibility to monitor the company's activities during the construction and operation phases of that project to ensure pipeline safety, and also to ensure that a company is abiding by all of the terms and conditions of its Certificate and the applicable regulations under the NEB Act. For example, during construction, the Board inspects the project, ensuring condition compliance and responding to landowner complaints. To address any noncompliance matters, the Board has various levels of enforcement tools available, up to and including stop work orders and revocation or suspension of the Certificate.

After construction, the Board retains jurisdiction over an approved project, assuming a supervisory and regulatory role for the life of the project. In this role, the Board ensures ongoing compliance with both Certificate conditions and applicable legislation under which the Board has a legislated mandate. As well, the Board deals with any complaints that arise during the life of the project and fall within the Board's jurisdiction.

The GH-1-2006 hearing provided an opportunity for the Board to hear the views of people who may be affected by the Brunswick Pipeline Project. In addition, those people who were granted intervenor status had an opportunity to ask written questions about the evidence on the record, ask questions directly of EBPC's witnesses, file evidence of their own and respond to questions on that evidence. Intervenors also had the opportunity to present arguments to the Board and respond to the arguments of the Applicant. In the Board's view, the combined written and oral portions of the GH-1-2006 hearing provided a complete record upon which the Board has based its final decision, under Part III of the NEB Act, whether the Brunswick Pipeline Project is and will be in the present and future public convenience and necessity, as well as under Part IV, with respect to traffic, tolls and tariffs on the Brunswick Pipeline.

2.5 Public Interest and the Public Convenience and Necessity Test under Part III of the NEB Act

The Board has described the public interest in these terms:[9]

> The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

As a federal tribunal, the Board must focus on the overall Canadian, or national, public interest. Various decisions of the courts have established that a specific individual's or locale's interest is to be weighed against the greater public interest, and if something is in the greater public interest, the specific interests must give way.[10]

Throughout the jurisprudence and commentary on "public convenience and necessity" and "public interest", the phrase "public convenience and necessity" has generally been treated as being synonymous with "public interest".[11] The public convenience and necessity test is predominantly the formulation of an opinion by the tribunal. This opinion must be based on the record before it; that is to say, the decision must be based not only on facts but with the exercise of considerable administrative discretion.[12] Similarly, there are no firm criteria for determining the public interest that will be appropriate to every situation. Like "just and reasonable" and "public convenience and necessity", the criteria of public interest in any given situation are understood rather than defined and it may well not serve any purpose to attempt to define these terms too precisely. Instead, it must be left to the Board to weigh the benefits and burdens of the case in front of it.

The Board has often incorporated these concepts into its own decision-making process; for example, it has stated that the test of public convenience and necessity is primarily a matter of reasoned opinion, based upon an appropriate factual basis that is within the discretion of the regulatory body.[13]

With respect to how these concepts apply to the Board in fulfilling its mandate under the NEB Act, it is noteworthy that Parliament did not find it necessary to specify how the factors set out in section 52, including how paragraph 52(e) [public interest], or any other factors that the Board might consider relevant, are to be examined and applied. The Board has the discretion to decide what factors are relevant in determining the public interest under the NEB Act. For example, the CEA Act requires a consideration of socio-economic effects only if they result from an environmental effect of a project. The Board usually considers a broader range of socio-economic effects when considering an application under the NEB Act.[14] Under paragraph 52(e) [public interest] of the NEB Act, the Board has, in the past, also taken into account other considerations related to the project, such as potential for commercial impacts, environmental protection and public safety.[15] In certain cases, the Board has also considered whether the addition of pipeline facilities to the existing Canadian pipeline infrastructure was in the public interest.[16]

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[9] See the Board's Internet site at http://www.neb-one.gc.ca/PublicInterestFootnote_e.htm

[10] See for example, *Re Actus Management Ltd. and City of Calgary* (1975), 62 DLR (3d) 421(AB Sup. Ct. (A.D.)), at QL p.4.

[11] Macaulay, *supra* note 3, at p. 8-6.

[12] *Memorial Gardens Assn. (Can.) Ltd. v. Colwood Cemetery Co.*, [1958] SCR 353 at 357 (SCC).

[13] *Joint Public Review Panel Report*, Sable Gas Projects, dated October 1997, pp. 129-130, citing *Memorial Gardens*. The Joint Panel Report was considered in the *National Energy Board GH-6-96 Reasons for Decision*, Sable Offshore Energy Project and Maritime and Northeast Pipeline Project, dated December 1997.

Since the public interest is dynamic, varying from one situation to another (if only because the values ascribed to the conflicting interests alter), it follows that the criteria by which the public interest is served may also change according to the circumstances.[17] In addition, it is worthwhile to note that while the Board may be guided by past decisions, it need not be bound by them; indeed, it may be imprudent to be so bound given the dynamic nature of the public interest, and the inherent exercise of administrative discretion in the Board's decision-making process.

While in certain cases the unequivocal failure of an applicant to satisfy the Board on a single critical component may be enough for the Board to conclude that, on that fact alone, the project cannot be found to be in the public convenience and necessity, such failure on a single factor is unlikely. More common is the situation where the evidence in one or more of the areas of examination is stronger than that presented with respect to other relevant matters.[18] In such cases, the Board will, on the basis of the evidence before it and within the specific circumstances of each application, apply administrative discretion and expertise in its overall determination of whether the applied-for pipeline is required by the present and future public convenience and necessity. In doing so, the Board must also, after carefully weighing all of the evidence in the proceedings, exercise its discretion in balancing the interests of a diverse public.

Accordingly, under the NEB Act, the factors to be considered and the criteria to be applied in coming to a decision on public interest or the present and future public convenience and necessity may vary as a result of many things, including the application, the location, the commodity involved, the various segments of the public affected by the decision, societal values at the time, and the purpose of the applicable section of the NEB Act. The following subsections and chapters discuss, among other things, the Board's identification, consideration, weighing and balancing of those factors the Board has determined are relevant to its assessment of this particular Project under section 52 of the NEB Act.

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[14] *National Energy Board GH-3-97 Alliance Comprehensive Study Report*, Alliance Pipeline Ltd. on behalf of the Alliance Pipeline Limited Partnership, dated September 1998, at p. 9.

[15] *National Energy Board GH-3-97 Reasons for Decision*, Alliance Pipeline Ltd. on behalf of the Alliance Pipeline Limited Partnership, dated November 1998, at p. 8.

[16] *National Energy Board GH-1-98 Reasons for Decision*, Northstar Energy Corporation, dated May 1998, at p. 27.

[17] *National Energy Board EH-1-2000 Reasons for Decision*, Sumas Energy 2, Inc., March 2004, at p. 10, citing with approval comments made by the Ontario Energy Board.

[18] *National Energy Board GH-2-2000 Reasons for Decision*, AEC Suffield Gas Pipeline Inc., dated August 2000, at p. 22-23.

2.6 Applying the Test in the GH-1-2006 Hearing to EBPC's Part III Application

During the course of this hearing, several parties raised the public convenience and necessity test, and the criteria that the Board should consider in making its decision in the public interest.

Section 52 states as follows:

> 52. The Board may, subject to the approval of the Governor in Council, issue a certificate in respect of a pipeline if the Board is satisfied that the pipeline is and will be required by the present and future public convenience and necessity and, in considering an application for a certificate, the Board shall have regard to all considerations that appear to it to be relevant, and may have regard to the following:
>
> (a) the availability of oil, gas or any other commodity to the pipeline;
>
> (b) the existence of markets, actual or potential;
>
> (c) the economic feasibility of the pipeline;
>
> (d) the financial responsibility and financial structure of the applicant, the methods of financing the pipeline and the extent to which Canadians will have an opportunity of participating in the financing, engineering and construction of the pipeline; and
>
> (e) any public interest that in the Board's opinion may be affected by the granting or the refusing of the application.

The effect of the language in section 52 is that the Board has broad discretion. Based on the decision of the Federal Court of Canada in *Union Gas* v. *TransCanada PipeLines Ltd.*[19], the only apparent limit on the exercise of that discretion is good faith, although the Board must, of course, exercise its discretion on the basis of relevant considerations and not arbitrarily or discriminatorily.[20]

In *Canadian National Railways* v. *Canada Steamship Lines Limited*,[21] the Privy Council, in construing the words "all considerations which appear to it to be relevant", which are the same words as used in section 52 of the NEB Act, held:

> It would be difficult to conceive a wider discretion than is conferred on the Board as to the considerations to which it is to have regard in disposing of an application for the approval of an agreed charge. It is to have regard to "all considerations which appear to it to be relevant". Not only is it not precluded negatively from having regard to any considerations, but it is enjoined positively to have regard to every consideration which in its opinion is relevant.

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[19] [1974] 2 F.C. 313.

[20] *Sumas Energy 2, Inc. v. Canada (National Energy Board)*, [2005] F.C.J. No. 1895 (FCA), at QL para 35.

[21] [1945] 3 D.L.R. 417 at 420.

While the factors that the Board will consider may vary in the circumstances of the case before it, there are certain factors that are typically addressed in pipeline applications. For example, public safety, environmental, and socio-economic concerns are usually raised in the context of public interest considerations, and were examined in this hearing as well.

2.7 Conclusion

In this proceeding, the Board heard evidence on engineering design and safety issues; economic considerations, such as supply and markets; public engagement and Aboriginal consultation; socio-economic and environmental effects of the Project; and land and routing matters. These issues are addressed in more detail in the following chapters. The Board has determined that all of these factors are relevant to its decision under Part III of the NEB Act, whether the Project is in the present and future public convenience and necessity. Accordingly, the benefits and burdens that would result from the Brunswick Pipeline Project in all of these areas must be identified prior to the Board's final determination of whether the Project is and will be required by the present and future public convenience and necessity. Chapters 3, 4, 5 and 6 discuss these issues and the associated benefits and burdens of these issues.

Chapter 7 addresses issues arising from EBPC's Part IV application with respect to the tolls and tariff on the Brunswick Pipeline Project. Additional benefits and burdens related to tolls, tariffs and service issues are also identified therein. The Board's determination on whether the tolls to be charged are just and reasonable, and whether there is unjust discrimination with respect to tolls, service or facilities, is contained in that chapter along with the Board's decision on EBPC's requested method of regulation.

The Board's weighing and balancing of all of the benefits and burdens of the Brunswick Pipeline Project, and its determination under Part III of the NEB Act is contained in Chapter 8 of these Reasons.

Its disposition with respect to EBPC's application is contained in Chapter 9.

Chapter 3

Facilities and Safety of Operation

3.1 Facilities Description

An overview description of the facilities is provided in Chapter 1. Additional details are set out below. The pipeline would be constructed in two sections, an urban section of approximately 31 km through the City of Saint John, NB beginning at the Canaport™ LNG Terminal, and a rural section of approximately 113 km extending from the City of Saint John to the M&NP US interconnect. The urban section includes approximately 4.2 km through Rockwood Park, and a planned horizontal directional drilling (HDD) crossing of the Saint John River.

Six mainline valve sites would be installed, each with a sectionalized block valve that can be operated either manually or by remote control from the Duke Energy Gas Transmission (DEGT) Houston gas control center. Three of the valve sites would be located within the City of Saint John, and three sites would be located along the rural section of the pipeline.

One custody transfer station would be installed on the Brunswick Pipeline at the interconnect point between the pipeline and the Canaport™ LNG Terminal.

The applied-for facilities include two sets of pig launcher/receiver facilities. A launcher would be installed at the interconnect between the Brunswick Pipeline and the Canaport™ LNG Terminal, and a launcher/receiver facility would be installed at the mainline valve site located adjacent to the Maritimes & Northeast Pipeline Management Ltd. (M&NP) Saint John Lateral (SJL) valve site 63. Although not part of this application, a receiver barrel would be installed in the United States (US) at the Baileyville Compressor station.

3.2 Pipeline Design

3.2.1 Codes and Standards

EBPC submitted that the applied-for facilities would be designed, constructed and tested in accordance with Canadian Standards Association (CSA) standard Z662-03, *Oil and Gas Pipeline Systems* (CSA Z662-03), the provisions of the NEB Act and other applicable governing codes. EBPC would also comply with the requirements of the *Onshore Pipeline Regulations, 1999* (OPR-99) for the construction, operation and maintenance of the pipeline. EBPC plans to conduct a 100 percent examination of all welds for the Project. Welding and testing would follow the requirements set out in CSA Z662-03. The pipeline would be tested in accordance with DEGT Procedure TP-CT1.0 dated 5 May 2004, "Pressure Testing of Gas Transmission Facilities", which complies with the requirements of both CSA Z662-03 and OPR-99.

3.2.2 Materials and Line Pipe

In its application, EBPC provided a detailed explanation of the specifications for the pipe and other proposed facilities for the Project. The pipe specifications are summarized in Appendix IV. EBPC stated "the Brunswick Pipeline will be a state-of-the-art natural gas pipeline, incorporating the latest in corrosion protection technology and built to standards often exceeding Code requirements."

A number of intervenors expressed concern about the thickness of the proposed pipeline and the possibility that it could be ruptured. However, EBPC submitted that the grades of steel and the pipeline thickness proposed for its pipeline were highly resistant to third party damage. It indicated that NEB standards for pipeline wall thickness were met or exceeded throughout the urban route. Further, EBPC stated that, based on a study it submitted entitled "Resistance to Puncture Pertaining to the Brunswick Pipeline" prepared by Kiefner & Associates, Inc., the risk of a third party event puncturing the urban pipeline would be remote.

3.3 Pipeline Construction

EBPC submitted that its development team has considerable experience designing, constructing and operating pipelines. EBPC had established a contractual relationship with St. Clair Pipelines (1996) Ltd. (St. Clair) to provide project management and technical services to permit and construct the Brunswick Pipeline, as well as to operate the Brunswick Pipeline once it is in service. EBPC stated that St. Clair has the most extensive pipeline construction and operating experience available in Maritime Canada as it was responsible for the design and construction of the M&NP system and is the contract operator of that system. EBPC indicated that, through St. Clair, it has also been able to access the considerable depth of experience of the DEGT staff, which operate natural gas pipeline transmission and gas distribution facilities across Canada and the US.

3.3.1 Blasting

EBPC anticipated a substantial portion of the proposed corridor would require mechanical ripping or blasting to excavate the pipeline trench. EBPC stated that most of the proposed urban corridor through the City of Saint John would require some degree of blasting.

EBPC proposed designing blasts to account for adjacent structures, facilities, and services and to use blast mats to prevent scattering of rock and debris. A concise blasting and blast monitoring protocol would be established and enforced in residential areas.

Blasts would be designed to limit vibration levels to 50 millimetres per second (mm/sec) at peak particle velocity (PPV). For vibration sensitive-structures, vibration would be limited to 25 mm/sec at PPV. Further, EBPC's contractor would conduct three test blasts based upon the blasting procedures prior to full scale blasting. If the test blasts do not produce an acceptably low level of vibration, the contractor would revise the blasting procedures.

EBPC committed to surveying all structures and facilities located within 200 m of the blasting zone both before and after blasting activities. Older homes in Milford would be assessed by a professional engineer to determine if they warrant a sensitive structure status. Claims for damage would be reviewed by comparing pre-blast surveys to post-blast surveys.

All existing groundwater wells within 500 m of blasting activity would be identified. EBPC indicated it would undertake seismic monitoring for the well situated closest to the RoW, within 500 m of each side of a blast, during blasting activities.

3.3.2 Horizontal Directional Drilling (HDD)

EBPC retained the specialized services of a consultant, AK Energy Services, to examine the feasibility of a number of HDD crossings along the corridors under review for the proposed pipeline. The crossing of the Saint John River between Pokiok and Pleasant Point attracted the most attention from participants during the proceeding. The most significant issues raised were noise and vibration, and the duration of construction. EBPC submitted that it plans to conduct this HDD during the winter construction season to avoid seasons during which residents would be more likely to keep their windows open throughout the day.

The issues and mitigation measures associated with HDD activity are addressed in the NEB's EA Report, which is attached in full as Appendix VII to these Reasons.

Views of the Board

The Board notes that St. Clair, to whom the construction and operation of the Pipeline has been contracted, has a great deal of experience in doing so, including direct experience in this locale.

The Board is satisfied with the measures that EBPC has proposed to minimize and mitigate the effects of blasting during construction. Adequate protection of vibration-sensitive structures will be provided by monitoring blasts within 200 m and limiting vibrations to 25 mm/sec PPV. In the event that any damage were to occur during blasting to sensitive structures, groundwater wells, or otherwise, the Board would expect EBPC to reassess the blast design before blasting activity continued.

In light of the information EBPC has provided to date, the Board is satisfied that EBPC intends to continue to develop and implement appropriate construction methods to handle challenges faced during the HDDs. The Board finds that the commitments EBPC has made to monitor and control noise and vibration are sufficient. EBPC's commitment to hire experienced contractors to perform the HDDs provides further assurance to the Board that the HDDs can be carried out as EBPC has proposed. [For further discussion about noise related to HDDs, please see the NEB EA Report.]

3.4 Pipeline Safety

3.4.1 Risk Assessment

In support of its application, EBPC submitted a report titled "Quantitative Risk Analysis of the Proposed Brunswick Natural Gas Pipeline" prepared by Bercha International Inc. (Bercha QRA Report). The purpose of the Bercha QRA Report was to evaluate the risks associated with operating the proposed pipeline and, if required, to identify any appropriate mitigative measures to minimize the risks to acceptable levels. The principle conclusions were summarized in that report as follows:

- The individual risk levels to members of the public were within acceptable limits and in the Insignificant risk regions.
- None of the individual specific risks fall into the Intolerable risk region.
- The HDD portion of the pipeline presents somewhat lower risk than the buried portion of the pipeline.
- The preferred route through Rockwood Park presents lower risks to the public than the other two alternatives.
- The preferred route through Rockwood Park presents significantly lower risks to the Saint John Regional Hospital than the northern route alternatives, although all route alternatives are in the Insignificant risk region.

The Bercha QRA Report included a number of general recommendations for EBPC to consider. These are summarized below:

- Land use control on the RoW should be maintained.
- An emergency response plan should be developed in conjunction with emergency response agencies and public representatives to manage any possible emergency.
- The preferred route through Rockwood Park is recommended, as it poses significantly lower risks to the Saint John Regional Hospital than the northern alternatives.
- Use of an existing RoW, wherever possible, is strongly supported. The addition of this pipeline to a well-marked and well-know utility RoW provides added safety protection.

Several intervenors expressed concerns about the risk associated with having the proposed facilities built through the City of Saint John, and in particular, near institutions like the Saint John Regional Hospital and in close proximity to residences like those in the community of Champlain Heights. Intervenors questioned the validity of the Bercha QRA Report and felt that the scope, breadth, basis, and depth of the assessment were inaccurate and insufficient to suitably identify and quantify the risks the urban section of the line may impose on the City of Saint John.

Mr. Ivan Court submitted a risk analysis report that had been prepared by the Saint John Fire Department (SJFD Risk Analysis Report) and provided to Common Council in September 2006. Bercha Engineering Limited (Bercha) reviewed this report for EBPC and concluded that because the document had been prepared without adequate participation of pipeline and risk analysis experts, it contained numerous faulty statements and conclusions. EBPC submitted that it had discussed public safety, related to the preferred corridor, with the Saint John Fire Chief and that it had addressed all of the recommendations made within the SJFD Risk Analysis Report.

The Friends of Rockwood Park (FORP) submitted two independent reports critiquing the Bercha QRA Report. The first of these, "An Independent Analysis of the Proposed Brunswick Pipeline Routes in Saint John, New Brunswick", was prepared by Richard Kuprewicz of Accufacts, Inc. That report concluded that the Bercha QRA Report was missing critical information to support or justify the risk transects determined for the on-land route through the City of Saint John. The second report, "Evaluation of *Quantitative Risk Analysis of the Proposed Brunswick Natural Gas Pipeline*, by the Bercha Group", was prepared by John Wreathall of John Wreathall & Co., Ltd. This report concluded that the Bercha QRA Report was deficient in several ways and failed to justify the claim that the risks from the pipeline would be insignificant.

Bercha addressed each of these reports on behalf of EBPC. It stated that both reports were general and vague with no quantitative substantiation for their claims. Bercha stated that the commentary in the Kuprewicz report was based on a generic interpretation of the QRA and other reports on pipelines, and Mr. Kuprewicz's lack of experience with pipeline risk analysis led to his incorrect and unsubstantiated claim that "immediate ignition of a pipeline rupture natural gas release is the worst case". With regard to the Wreathall report, Bercha stated that it offered only negative comments with no useful suggestions, and that Mr. Wreathall's lack of experience and competence with pipeline risk analysis led to his conclusion that "a significantly delayed ignition" was the worse case. Bercha submitted that both these claims were incorrect, and "in fact, for a rupture, the worst case initial flow rate occurs neither immediately nor late, but in the first few minutes."

In support of its view that "an underground transmission pipeline is by far the safest and most environmentally friendly way to transport large volumes of natural gas", and to allay the concerns of a number of intervenors over the safety of the Brunswick Pipeline, EBPC submitted "A Summary of Existing High Pressure Natural Gas Transmission Pipelines in High Density Urban Areas". EBPC submitted that the mapping examples it provided "clearly illustrate that critical infrastructure, residential and commercial developments, schools, hospitals, shopping malls and other public facilities in closer proximity to existing gas transmission pipelines operate in Canada and the US in a fashion similar to how the Brunswick Pipeline will operate." EBPC argued that this fact is "irreconcilable with the dire consequence assessments" offered in the SJFD Risk Analysis report, the Kuprewicz report and the Wreathall report.

EBPC stated that risks are identified, assessed and mitigated in the design, construction, testing and operation phases of a pipeline project. By meeting or exceeding all of the requirements for pipeline safety prescribed by government regulations and industry standards, the proposed Project would meet or exceed established "accepted risk" criteria.

Views of the Board

> **The Board is of the view that EBPC has taken an acceptable approach to identifying and assessing the risks associated with the urban and rural**

sections of the proposed Pipeline. The Board notes that the urban section of the proposed Pipeline has been designed for the requirements of a Class 3 location designation, which meets or exceeds the requirements of CSA Z662-03 for the types of development existing and anticipated along the pipeline route, including schools and institutions where evacuation may be difficult.

The Board accepts the Bercha QRA Report as accurately portraying the risks associated with this proposed project. The Board finds that the other risk assessment reports filed as evidence did not identify any critical issues which would cause the Board to question the conclusions contained within the Bercha QRA Report.

3.4.2 Quality Assurance and Integrity Programs

3.4.2.1 Quality Assurance Program

EBPC committed to following the DEGT Quality Assurance Program. The Quality Assurance Program would ensure that pipeline construction materials, and inspection and test procedures, would meet the specifications provided for in the pipeline design.

3.4.2.2 Pipeline Integrity Management Program

EBPC committed to adopt and augment as necessary the M&NP pipeline integrity management program. As described by EBPC, the pipeline integrity management program would employ a cycle of hazard identification, condition monitoring, mitigation of hazards, documentation, and feedback measures, including the following:

- internal inspection programs;
- investigative excavation programs;
- slope monitoring and surveillance;
- watercourse crossing inspections;
- cathodic protection surveys; and
- leak detection surveys.

In its reply evidence, EBPC described at length how operational hazards and threats would be managed as a component of its integrity management program. EBPC has committed to run an in-line inspection tool roughly three years after commencement of operation, and subsequent tool runs approximately every seven to ten years.

3.4.3 Operation

Many of the issues raised with respect to the operation of the proposed pipeline and the evidence on these issues were discussed in sections 7.2.1 and 7.2.4.1 of the NEB's EA Report, attached as

Appendix VII to these Reasons. The following sections should be read in conjunction with those sections of the EA.

3.4.3.1 Control, Monitoring, and Leak Detection

Several participants expressed concern over the ability of EBPC to react to potential leaks of natural gas from the proposed pipeline.

EBPC responded that the pipeline would be controlled from DEGT's Gas Control centre located in Houston, Texas. Control would be carried out using a supervisory control and data acquisition (SCADA) system that continuously monitors the pipeline operation parameters and processes pressure and volumetric data measured at each valve and flow meter. Based on this data, the SCADA and leak detection system would relay the commands for the operation of the control system. EBPC indicated that Gas Control would be alerted of a potential issue by a rate of pressure change alarm. It estimated that it would likely take about five to six minutes to detect a rapid pressure drop on the SCADA system, make a decision to shut in the line, and initiate the closure passwords. Further, EBPC submitted that to ensure that loss of power or communications would not impact control center response, there would be back-up power and communications systems to ensure that pressure and flow monitoring at valve sites and related communications to transmit system information could continue.

Additionally, EBPC submitted that regular inspection of the RoW by trained personnel, emergency call numbers, as well as the addition of an odourant (mercaptan) to the gas, would ensure detection of leaks too small to be detected by the sensors in the line.

3.4.3.2 Emergency Preparedness and Response

EBPC committed to adopting and augmenting as necessary the M&NP Emergency Preparedness and Response Program (EPRP). The EPRP would include the following components:

- Introduction;
- Risk Assessment;
- Federal and Provincial Agency List;
- Agency Liaison Program;
- Public Continuing Education Program for Emergency Planning Zone (EPZ) Residents and First Responders;
- Emergency Preparedness Manuals;
- Training; and
- Validation and Emergency Exercises.

EBPC committed to undertaking a risk assessment upon completion of the detailed routing process to establish the size of the EPZ. The size of the EPZ would be equal to or less than 800 m, defined as a circle with the specified radius measured from the point of a pipeline incident. When extended for the length of the pipeline, the limits of the EPZ would parallel the pipeline at the specified distance on both sides of the pipeline.

Upon establishing an EPZ, EBPC indicated it would develop an accurate database identifying occupied structures within the EPZ. EBPC would develop and carry out its Continuing Education Program, targeting residents within the EPZ. This program would educate EPZ residents on pipeline location, potential emergency situations, safety procedures, the roles of residents, what to expect in the event of an emergency, and the actions of pipeline personnel and first responders. The Continuing Education Program would also target first responders, providing education on their duties and responsibilities, practices to ensure public and responder safety, assignment of clear roles, and chain of command.

EBPC has identified lead agencies that would be consulted after the detailed routing is substantially complete. These agencies were identified in the proceedings and are summarized in the NEB EA Report, and include the SJFD, Saint John City Police and Saint John Emergency Management Organization (EMO).

EBPC's Field Emergency Response Plan (ERP) would meet the Board requirement in the OPR-99 for an Emergency Preparedness Manual. The ERP for the Brunswick Pipeline would mirror the plan developed by M&NP for the SJL. EBPC committed to developing an ERP in accordance with NEB requirements and would prescribe measures to ensure effective and timely response to emergencies, and to protect the public. The ERP would:

- identify arrangements made to respond to pipeline incidents, including any mutual aid agreements made with outside agencies;
- outline roles and responsibilities related to emergency response;
- define notification and reporting requirements for incidents; and
- provide guidelines and site-specific emergency response procedures for operation and maintenance staff and emergency response agencies.

EBPC also committed to conducting emergency response exercises of varying scope, from table top exercises and internal field mock emergencies to full scale mock emergencies involving external agencies.

Views of Interested Parties

A number of intervenors were of the view that it was unacceptable to have critical infrastructure and facilities within the EPZ. Concerns were raised about facilities in close proximity to the proposed pipeline route, the potential for these facilities to be within the EPZ, and how a pipeline emergency would interact with critical structures within the EPZ. Through the proceedings many facilities and structures that could potentially fall within the EPZ were identified; for example, health care facilities, such as the Saint John Regional Hospital; a nursing home; a fire station; the Irving refinery; schools; churches; and a number of residences.

Concerns were raised regarding the capabilities of first responders to attend to a high pressure natural gas pipeline emergency. The SJFD Risk Analysis Report identified deficiencies in the fire department's resources and capabilities and recommended a number of actions for EBPC to consider.

Intervenors submitted that details regarding first response to a pipeline emergency were either insufficient or impractical. Many intervenors sought information on how emergency response would be conducted: for instance, notification of residents, roles of first responders, and the possibility for evacuation. Intervenors were not satisfied that the means for notification were appropriate (e.g., knocking on doors, radio alerts), nor were they satisfied that the logistics were appropriately communicated to residents and businesses within the EPZ.

Secondary and emergency access was a topic of great concern to many participants, particularly to members of the communities of Milford and Randolph. Regarding Milford, it was the position of some intervenors that there was not a viable access route in the event of an emergency near the Lou Murphy overpass and that the agreement with J. D. Irving, Limited (J.D. Irving) to use Irving's road was not a viable alternative.

EBPC's Response to Concerns Raised

In response to concerns raised, EBPC described how the EPZ would be established after a risk assessment of the detailed pipeline routing was complete. EBPC maintained that the preferred corridor would provide flexibility for the final location of the pipeline and therefore the limits of the EPZ would be similarly flexible. EBPC does not expect that the Saint John Regional Hospital would fall within the EPZ. The Applicant cited numerous pipelines through urban corridors that pass in close proximity to facilities similar to those found in the City of Saint John, indicating that high pressure gas transmission pipelines are commonplace and can coexist within an urban setting.

EBPC responded to questions regarding the training and capabilities of first responders by assuring that training would be provided at EBPC's expense. Further, EBPC responded to the SJFD Risk Analysis Report by making commitments that addressed each of the recommendations, such as providing training and funding to first responders, consulting on the finalization of an ERP, and indicating there would be consideration of design alternatives. Details of the commitments were in EBPC's reply evidence.

In the event of a pipeline emergency, EBPC indicated that the Field ERP would be invoked. First responders and the EMO would notify homes and businesses by means of knocking on doors, mass broadcasts, and radio alerts. Any secondary fires or significant evacuation efforts would be handled by first responders and the EMO, including the selection and coordination of sheltering locations, incident command centers, and roadblocks. EBPC noted that public institutions typically require an evacuation plan and these plans would likely not require revision due to the presence of a natural gas pipeline. EBPC's role would be to advise first responders on the size of an appropriate evacuation zone, share relevant information that would be in the EPZ database, and to provide advice on when it would be safe for the public to return to their residences and businesses. EBPC committed to working with first responders and the EMO to adopt, promote, or help develop methods to notify the public and to identify areas with limited access and consider alternate routes. However, EBPC noted that primary responsibility in the event of a public emergency would lie with first responders.

Regarding secondary and emergency access, EBPC received assurance from J.D. Irving that access would be provided across its lands for emergency response vehicles and personnel should the existing access be impeded by a pipeline incident. EBPC confirmed that J.D. Irving personnel and equipment are on site 24 hours a day and could quickly open the gates for emergency access.

EBPC provided comments to the Board on a possible condition requiring that an emergency response exercise be conducted within six months after commencement of operation. According to EBPC, it discussed the draft conditions with first responders, and all parties agreed that an emergency response exercise should be conducted, but that it should be a table top exercise with the objectives of:

- verification of respective roles and responsibilities;
- verification of notification matrix; and,
- verification of practices and procedures.

Views of the Board

The views of the Board in the NEB EA Report under section 7.2.1 and 7.2.4.10 address many of the issues discussed above. To fully comply with the OPR-99 and meet the Board's expectations for an appropriate and effective EPRP, the Board expects EBPC's EPRP to include the following elements:

- emergency preparedness and response program development (hazard assessment);
- emergency procedures manual (EPM);
- liaison program (first responders);
- continuing education program (public);
- emergency response training;
- emergency response exercises;
- incident and response evaluation; and
- emergency response equipment.

Details on the expectations for each of these eight major expected elements can be found in Appendix B of the Guidance Notes for the OPR-99. The Board regularly conducts audits and inspections of companies' EPRPs for the purposes of verifying the presence of these elements and reviewing the appropriateness and effectiveness of each element.

As an initial step in this verification process, the Board generally places a condition on Certificates requiring the filing of the EPM within a predetermined timeframe prior to commencement of operation. This requirement enables the Board to review and resolve concerns with companies prior to operation. Should serious deficiencies in the EPM be identified and unresolved within that timeframe, the Board may withhold leave to open of the pipeline until such deficiencies are resolved. Due to the varying complexity and scope of pipeline applications before the Board, the EPM is often not available until immediately prior to operation.

Typically, the Board requires an applicant to submit its EPM 14 days prior to commencement of operation. In this instance, the level of public concern has warranted a greater timeframe for the Board to review the EPM. Should a Certificate be issued, the Board would impose a condition to requiring EBPC to file its EPM within 60 days prior to operation (condition 18 of Appendix V). In this case, 60 days would provide a timeframe within which there is flexibility to resolve outstanding concerns. Further, Board Emergency Management Specialists would be available to clarify the Board's expectations for submission of the EPM, and the Board encourages EBPC to consult with the Board's specialists at any time prior to submitting its EPM. The Board also reminds EBPC that an evacuation plan with potential evacuation points should be included in the EPM.

The Board recognizes that EBPC has M&NP's SJL EPRP upon which to base its EPRP for the proposed facilities. EBPC has demonstrated in this proceeding that the elements it is proposing to include in its EPRP are similar to those that the Board expects to find in an EPRP.

The training, resources, and capabilities of first responders were questioned throughout the proceeding. The Board notes EBPC's commitment to resolve concerns, such as to provide training and funding to first responders. The Board views EBPC's resolution of many of these concerns as a positive indication of stakeholder consultation; however, supporting evidence of consultation throughout the remaining development of the EPM will be required. Should a Certificate be issued, the Board will impose a condition to require filing of evidence of such consultation (condition 19 of Appendix V).

With respect to EBPC's comment on the Board's proposed condition to conduct an emergency response exercise, the Board refers parties to its view in the NEB EA Report on this matter. Should a Certificate be issued, the Board will require EBPC to conduct a full emergency response exercise as recommended in the NEB EA Report and as detailed in condition 21 of Appendix V. The Board expects that EBPC would identify critical locations, for example, where access and egress by first responders may be impeded, and would focus its exercise upon those locations. The Board is satisfied from the evidence that there is a reasonable access alternative available for first responders and the EMO, in the event of inaccessibility to the Lou Murphy overpass. However, due to the amount of public concern raised, the perceived lack of continuing public education, and the contested viability of secondary access, the Board strongly recommends that EBPC consider conducting the conditioned initial exercise near the community of Milford to evaluate the effectiveness of the EPRP as a whole.

To provide a baseline for verification of compliance with Board requirements and expectations regarding emergency respons ercises, should a Certificate be issued, the Board will impose a condition for EBPC to file the proposed frequency and type of exercises and explain how results of such exercises would be integrated into the company's training and exercise program (condition 22 of Appendix V).

While EBPC cited a number of examples of high pressure natural gas transmission pipelines in an urban environment, the Board does not rely on precedence in making its decision. Successful operation of the Brunswick Pipeline under the Board's jurisdiction will be contingent, in part, upon adequate development and implementation of EBPC's EPRP.

Sections 53, 54 and 55 of OPR-99 require a company to conduct audits and inspections of its programs and systems to ensure that the pipeline is designed, constructed and operated safely and in compliance with regulatory requirements and conditions. The NEB routinely conducts audits and inspections of pipeline projects to verify regulatory compliance. These regulatory activities continue throughout the life of a project. The Board is of the view that the provisions of OPR-99 and the audit programs of the NEB, in conjunction with EBPC's commitments and fulfillment of the Certificate conditions referenced above, are sufficient to ensure that the Brunswick Pipeline will be operated in a safe manner.

Chapter 4

Supply and Markets

4.1 Justification for the Project

EBPC stated that the proposed Brunswick Pipeline would be required to support the Canaport™ LNG Terminal and that the Project would provide access to a significant and diverse new source of natural gas supply for markets in Maritime Canada and Northeast US. This regional addition to supply would be able to accommodate demand growth and would facilitate further development of Canadian markets and infrastructure. In fact, some of the gas Repsol would export to the US using the Brunswick Pipeline may be re-imported to Canada. Repsol's long-term development plans potentially provide for future natural gas service to Quebec markets.

Views of Interested Parties

Nova Scotia Department of Energy (NSDOE) felt that the justification and benefits in evidence for the Project were not clear for Canadian markets and argued that the Project would not promote the benefits of economic efficiency that potentially could be gained by more fully utilizing existing pipeline infrastructure in the Maritimes.

Enbridge Gas New Brunswick (EGNB) believed that the diversity of supply that this Project could bring to the market created the possibility of greater economic benefit to Maritime markets. This benefit is particularly attractive for EGNB's customers, both current and future, as its customers would have the possibility of receiving service through a direct interconnection between the Brunswick Pipeline and EGNB's distribution facilities. However, EGNB stated that it believed Canadian markets would not be well served by this Project if the benefits of the additional supply were never realized by those markets.

In the opinion of Bear Head LNG Corporation, Anadarko Canada LNG Marketing, Corp. and Anadarko LNG Marketing, LLC (Anadarko), the Brunswick Pipeline Project is a bypass pipeline designed to avoid the postage stamp toll on the Canadian M&NP system. Anadarko was of the view that the Project, if approved, would unnecessarily duplicate existing pipeline facilities that could be modified to accommodate the proposed new source of gas supply. Furthermore, Anadarko argued that the capital cost of expanding M&NP's Canadian facilities would likely be less than the cost of the proposed Brunswick Pipeline [See section 7.2 for further discussion of Anadarko's position].

In reply to Anadarko's argument, Repsol maintained that "greenfield" pipelines, like the proposed Brunswick Pipeline, that are needed to tie new sources of supply into the North American gas transmission grid do not duplicate any existing facilities. The Brunswick Pipeline would be a "greenfield" pipeline system connecting a new source of supply to the integrated North American gas transmission infrastructure.

Atlantica Centre for Energy, Inc. submitted that the Canaport™ LNG Terminal under construction on the east side of Saint John could provide the Maritime region with a new, long-term secure source of significant quantities of natural gas that would help build a strong local economy. However, in order for the Canaport™ LNG Terminal to be useful, it must be able to deliver the natural gas to markets. The party submitted that the Brunswick Pipeline would be a means of accomplishing this.

A number of interested parties believed that the Brunswick Pipeline would fulfill no specific need for the Maritime Region given that supply from existent projects could more than adequately meet the needs of Maritime Canada natural gas customers. Furthermore, some of these parties saw a potential for decreased reliance on fossil fuel energy, including natural gas, in exchange for greener and renewable resources in the future.

EBPC's Response to Concerns Raised

EBPC reiterated that through the use of the proposed Brunswick Pipeline, natural gas from the Canaport™ LNG Terminal would be made available to customers in Maritime Canada and other regions both to serve existing demand and to facilitate further development of the natural gas markets and infrastructure in those regions. EBPC stated that the Brunswick Pipeline would provide a potential direct connection to a new long-term source of supply for Canadian markets and, via exchanges, would also provide existing shippers and/or Maritime markets the ability to use M&NP transportation that might otherwise go unused. Shippers would not contract for future service on the M&NP system without gas supply.

Views of the Board

The Board is of the view that there will be a continued interest in the regional use of natural gas in the future and the Board accepts EBPC's evidence with respect to the need and justification for the Project proposed. On the basis of the evidence, the Board is persuaded that the intended purpose of the Brunswick Pipeline is to connect a new incremental supply source to existing markets and is of the view that the Project as proposed does not duplicate existing facilities in the region. [See section 7.2 for further discussion of this issue].

While concern was expressed by some intervenors regarding potential future underutilization of regional pipeline infrastructure as a result of the introduction of the Brunswick Pipeline, the Board did not find reasonable grounds in the evidence to support this concern. To the contrary, the Board has been persuaded by the evidence before it that the implementation and subsequent operation of the proposed pipeline has the potential to encourage increased utilization of current energy infrastructure through the establishment of a new connection to a reliable incremental supply source, which could then be backhauled or otherwise transported through existing facilities. [See section 4.2.3 and Chapter 7 for further discussion of this matter.]

4.2 Gas Supply

4.2.1 Supply to the Project

EBPC submitted that the Brunswick Pipeline would interconnect with the Canaport™ LNG Terminal at Mispec Point in Saint John, NB. The Canaport™ LNG Terminal will be a facility capable of receiving LNG and regasifying up to 1,000,000 MMBtu/day of pipeline quality natural gas.

EBPC submitted that Repsol would be the owner of all of the natural gas output from the Canaport™ LNG Terminal. Accordingly, any gas supply transported through the Project would be provided by Repsol.

EBPC indicated that the Brunswick Pipeline would be able to transport, on a firm basis, 850,000 MMBtu/day. It would also be able to transport additional volumes of up to 150,000 MMBtu/day on an interruptible basis. These volumes would depend on system operating conditions, including operating pressure, and which customers would be taking service.

EBPC understood that Repsol plans to source the Canaport™ LNG Terminal's initial LNG supplies from Trinidad & Tobago. However, due to the logistical benefits that the Canaport™ LNG Terminal offers to most Atlantic Basin LNG supply projects, Repsol may acquire its LNG supplies from one or more of the other sources in the portfolio of Repsol YPF, Repsol's parent company, or even from third-party sponsored supply projects that could provide secure supply opportunities for Repsol. Repsol YPF is Spain's largest integrated oil company and one of the top ten private oil companies globally in terms of oil and natural gas production. Repsol assured the Board that the Repsol group of companies has sufficient LNG under contract to assure that the Canaport™ LNG Terminal and therefore the Brunswick Pipeline would be highly utilized.

The Applicant stated that the two LNG supply regions from which Eastern Canada may be expected to draw, the Atlantic Basin and the Middle East, represented 58 percent of world-wide capacity in 2005 and are likely to increase their share to 66 percent by 2010. According to EBPC, a substantial amount of new liquefaction capacity that could supply the Canaport™ LNG Terminal is scheduled for the Atlantic Basin.

Views of Interested Parties

NSDOE was of the view that there was no specific evidence in this proceeding regarding Repsol's portfolio strategy or how it manages its portfolio. NSDOE was not persuaded by the evidence that this Project, as proposed, would result in any incremental supply of gas to the Maritime markets. It was concerned that there were no actual commitments to a dedicated gas supply for the Brunswick Pipeline, only intentions.

EGNB expressed concern that there was a lack of specific commitments regarding the quantity of LNG, and therefore natural gas supply for the Brunswick Pipeline, to be delivered to the Canaport™ LNG Terminal. Because of this uncertainty surrounding the supply available to the Canaport™ LNG Terminal, EGNB was not persuaded that the facility would produce adequate natural gas supply for Repsol, the current sole shipper on the Brunswick Pipeline, nor was it persuaded that gas supplies not committed to Repsol would be available for Maritime markets.

Repsol stated that applications for Certificates for commercially at-risk pipelines do not need to be supported by existing gas supply or sales contracts. In its view, what was required of an applicant is evidence that would establish a reasonable expectation that a proposed pipeline project would operate at a reasonable level of utilization, that there would be sufficient gas supply available to the pipeline and that the gas would be able to find suitable markets.

EBPC's Response to Concerns Raised

Since Repsol would be paying all fixed charges on the Brunswick Pipeline regardless of throughput, according to the FSA, EBPC submitted that Repsol had incentive to maximize its use of the Brunswick Pipeline. Its use of the Brunswick Pipeline is dependent on ensuring that the Canaport™ LNG Terminal is receiving adequate LNG supplies from Repsol's portfolio.

EBPC argued that the portfolio of LNG available to Repsol for use at the Canaport™ LNG Terminal would be as secure as the portfolio of LNG supply that the Repsol group of companies utilizes for all of its interests in LNG terminals worldwide. Projects in Eastern Canada would compete for supply with other North American locations. EBPC submitted that the Maritimes enjoys a significant transportation advantage over existing US terminals for many supplying locations since the transportation distances to terminals in the Maritimes would be shorter.

EBPC submitted that LNG terminals in the Maritimes have the best transportation advantage over terminals in the Gulf Coast with respect to supplies from Northern Europe, followed by supplies from North Africa and the Middle East. West Africa would provide a somewhat smaller advantage, but there would be basically no advantage for Caribbean supplies. Thus, in EBPC's view, the best alternatives for Maritime projects would be to seek supplies from Northern Europe, North Africa or the Middle East.

> ### *Views of the Board*
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> The Board finds that sufficient evidence was presented to satisfy the Board regarding the capacity and ability of the Canaport™ LNG Terminal to deliver a sufficient volume of natural gas to support the applied-for facilities. The Board is persuaded that LNG would provide a unique source of supply for any given project, and its ability to support a downstream project, such as the applied-for facilities, may be viewed differently from supply from a dedicated gas field. The Board finds that there are both positives and negatives associated with relying on a portfolio of assets. While a portfolio of assets may not provide a specific dedicated supply field to a project, there is the flexibility to draw from various fields and therefore mitigate potential supply problems in any given supply basin. The Board finds that, in this instance, rather than relying on the ability of one supply basin to fulfill the long-term needs of the Project, the Brunswick Pipeline would be able to rely, indirectly, on multiple supply basins. Based on the evidence submitted, the Board is of

the view that the gas suppliers in this case will be able to satisfy Brunswick Pipeline's natural gas supply needs. Therefore, the Board concludes that there is sufficient certainty that the Canaport™ LNG Terminal will be able to rely on LNG supply from Repsol's portfolio of upstream assets to reasonably satisfy the supply requirements of the Brunswick Pipeline Project.

4.2.2 Regional State of Supply

EBPC is seeking approval of a pipeline that would potentially connect a new incremental supply source to natural gas markets in Maritime Canada. EBPC submitted that in a recent NEB report, The Maritimes Natural Gas Market: An Overview and Assessment, 2003, the Board stated "[l]ooking to the future, the most important issue is the uncertainty surrounding the timing of the development of additional supply". EBPC pointed out that the Maritime Canada natural gas market is currently being served by Sable Offshore Energy Project (SOEP), and the current outlook for additional significant deliverability in the Maritime Region is uncertain.

Views of Interested Parties

Repsol submitted that Sable gas supplies were declining at a faster rate than originally expected as demonstrated by:

a) evidence indicating that Sable gas supplies could reach non-economic production levels between three and six years;

b) the actions of Sable producers in turning back most of their transportation obligations on the M&NP US pipeline system (on the condition that the Brunswick Pipeline would be approved); and

c) the absence of evidence from any other intervenors indicating otherwise.

Irving Oil Limited (Irving Oil) indicated that there was no longer any assurance that the long-term supply needs of SOEP customers, including Irving Oil, could be met. Irving Oil was of the view that, as both the largest single user (80 percent) of natural gas in Maritime Canada and as an existing shipper on M&NP having significant demand charge commitments on the M&NP system, it has justifiable concerns with respect to its long-term potential natural gas supplies.

NSDOE indicated that it was not persuaded by the evidence that the proposed Project is the only or the best alternative for meeting the supply needs of the Maritimes. NSDOE and others maintained that there are other options including Deep Panuke, Corridor Resources, other potential LNG projects, and backhaul of US supply via a reversed M&NP pipeline system, that could bring a much needed additional supply of natural gas to markets in Maritime Canada.

Anadarko emphasized that, in its opinion, LNG suppliers are seeking the most attractively priced and liquid markets. The Northeast US markets are a natural anchor for Eastern Canadian coastal LNG terminal projects, and the Brunswick Pipeline has been presented as a much cheaper transportation alternative than the only other option available for transporting supply from

Maritime Canada to the downstream anchor market, M&NP. In Anadarko's view, the difficulties that Bearhead LNG had experienced in obtaining upstream LNG supply had been exacerbated by the competing Canaport™ LNG Terminal's potential access to much lower Canadian transportation costs on the Brunswick Pipeline. [See section 7.2 for further discussion of this matter.]

Other intervenors were not persuaded by the evidence that natural gas would be as much of a fuel of choice in the future. In their view, other fuel alternatives may become increasingly feasible and attractive to the Maritimes, and this could offset some of the forecasted incremental demand growth. Intervenors stated that an interest in alternative fuels could thus reduce the need for additional regional natural gas supply sources and subsequently the need for transportation of that natural gas.

EBPC's Response to Concerns Raised

EBPC reiterated that the project before the Board at this time is the proposed Brunswick Pipeline Project, and that it would not be appropriate to compare this Project to hypothetical alternatives, such as other LNG projects or alternative resources, options that may or may not be feasible at a future date. In its view, incremental natural gas supplies could be used to expand the current Maritime Canada market and also supplement the current SOEP supplies, thereby ensuring adequate long-term supplies to continue the long-term operations of existing and potential future industrial users of natural gas in the Maritime Canada market.

> ***Views of the Board***
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> The Board is of the view that additional supply to the Maritimes is a necessary component for Maritime Canada's future natural gas market development. Little evidence was submitted to show that alternative fuel options would significantly reduce this need. The need for new regional supply was addressed by various parties involved in the proceeding, as noted above, and the Board finds from the evidence that an incremental regional natural gas supply source is necessary for Maritime Canada to promote the long-term growth of the regional energy market.

4.2.3 Maritime Canada Access to Supply

EBPC stated that the gas delivered through the Brunswick Pipeline would be accessible to Maritime markets by a number of means including the following:

1. When gas is flowing on M&NP to the US:

    a) Repsol and shippers on M&NP could enter into an exchange transaction, also called a swap, whereby supplies of natural gas transported on the Brunswick Pipeline would be delivered to a US customer of an M&NP shipper while that M&NP shipper serves the needs of an Irving Oil/Repsol customer in Canada by delivering gas to the Canadian customer on the M&NP pipeline; or

b) an existing or new shipper on M&NP could elect to receive natural gas using St. Stephen as its receipt point.

2. When gas is not flowing on M&NP to the US, natural gas could be physically backhauled on M&NP from the Canada/US border. Thus an existing M&NP shipper could use St. Stephen as a secondary receipt point or a new M&NP shipper could contract for capacity on M&NP to receive gas at St. Stephen for delivery along M&NP. The M&NP system has been designed to accommodate reverse flows or physical backhauls.

3. A direct pipeline connection to the Brunswick Pipeline could be made.

Accordingly, EBPC submitted that any party currently connected to M&NP could contract for natural gas supplies from the Canaport™ LNG Terminal and receive the supplies via a swap, a change in its receipt point, a direct connection to the Brunswick Pipeline, a backhaul, or any combination of such.

EBPC indicated that the potential combined firm and interruptible capacity on the Brunswick Pipeline would exceed the capacity reserved by Repsol's affiliate on M&NP US (approximately 750,000 MMBtu/day including fuel). EBPC submitted that, even if Repsol's affiliate were fully utilizing its reserved capacity on M&NP US, up to 250,000 MMBtu/day of incremental capacity on the Brunswick Pipeline would be available to provide deliveries of natural gas from the Canaport™ LNG Terminal to the Maritime Canada market.

EBPC submitted that the amount of gas available for Maritime Canada markets would depend primarily on four things: (a) the capacity of the Canaport™ LNG Terminal, (b) the capacity of the Brunswick Pipeline, (c) the size of the market in Maritime Canada, and (d) the ability of buyers and sellers to reach mutually satisfactory commercial terms for the sale and purchase of natural gas.

Views of Interested Parties

EGNB was not persuaded that having natural gas available to Maritime Canada markets via EBPC's proposed methods of backhauls or swaps would provide Maritime markets with adequate assurance of secure access to supply. EGNB argued that backhauls and swaps could result in unnecessary costs to natural gas customers that could be avoided with a direct connection. Further, EGNB believed that the Applicant's proposed methods of access could be detrimentally affected by unrelated upstream activity. EGNB stated that swapping would only be possible if a willing party had supplies available to swap. Given decreasing deliveries from SOEP and uncertainty around additional regional developments, this method may prove to be impossible for M&NP shippers. For backhauls, a similar challenge could exist as some of the projects being planned to utilize a backhaul service may not exist. EGNB therefore submitted that these methods of access to gas for Maritime markets would not be optimal for the Canadian public interest. EGNB requested that the Board add a condition to any Certificate it might issue for the Project that would provide for third party access to the pipeline.

EGNB submitted that even if direct access to the Brunswick Pipeline could be guaranteed, this would not provide the necessary assurance for the distribution company regarding its ability to access supplies from this new incremental natural gas source, and that source of supply was a large component of EBPC's justification for its proposed Brunswick Pipeline. EGNB recommended that a condition be placed on the Applicant's applied-for Certificate that would reserve a portion of the incremental natural gas supply for the Maritimes.

Evidence indicated that negotiations between Irving Oil and Repsol are ongoing; however, NSDOE stated that no gas had been set aside for Maritime Canada markets, and none would be unless somebody was able to negotiate acceptable terms with Repsol.

Irving Oil stated that, while Repsol and Irving Oil have not yet completed the negotiation of commercial agreements such that Irving Oil could pursue marketing the Canaport™ LNG Terminal natural gas, they had initiated discussions on the necessary arrangements. Under these arrangements, Irving Oil would purchase natural gas from the Canaport™ LNG Terminal, both for its proprietary use and for resale to third parties in Maritime Canada, pursuant to its marketing rights. Irving Oil stated that it intends to utilize, for its local proprietary purposes, roughly one-third or about 80,000 MMBtu/day of the natural gas that could be available, leaving approximately 170,000 MMBtu/day that it intended to market to third parties in the rest of Maritime Canada.

Repsol confirmed that an initial framework of commercial arrangements governing the marketing of Canaport™ LNG Terminal natural gas was in place, and this framework would help the finalization of negotiations between Repsol and Irving Oil. Irving Oil would be the exclusive marketer of Canaport™ LNG Terminal natural gas in Maritime Canada, and up to 250,000 MMBtu/day of natural gas (firm and interruptible) would be available through Repsol's exclusive marketer, Irving Oil, for Canadian shippers to acquire the gas on competitive terms and conditions.

EBPC's Response to Concerns Raised

EBPC maintained that Maritime Canada interests would be adequately satisfied by the proposed Brunswick Pipeline. Based on the information contained in M&NP's 2005 annual surveillance report filed with the Board, 410,000 MMBtu/day of gas was transported by M&NP during the 12 months ending 31 December 2005. The report further indicated that deliveries to Maritime Canada markets were only 19 percent of total gas transported, or about 80,000 MMBtu/day. Accordingly, the potential 250,000 MMBtu/day of gas that could be made available on the Brunswick Pipeline to Maritime Canada markets would be over three times the average daily quantities that had been delivered to Maritime Canada markets in 2005. Therefore, EBPC argued that the available capacity on its proposed pipeline could provide ample deliveries to the existing Maritime Canada market as well as to new markets that might develop there.

Although negotiations have yet been completed, EBPC submitted that Repsol would like to see its sales quantities reach 1,000,000 MMBtu/day as close to the start-up of the Canaport™ LNG Terminal as possible. It argued that this provided a strong motivation for Repsol to maximize sales to the Maritime Canadian market. In addition to this, up to 250,000 MMBtu/day of Canaport™ LNG Terminal natural gas could be sold in Maritime Canada without Repsol incurring any incremental pipeline transportation costs. Accordingly, EBPC submitted that Repsol has a very strong incentive to negotiate an agreement with Irving Oil, its exclusive marketing agent in Maritime Canada, so that it could sell up to 250,000 MMBtu/day of Canaport™ LNG Terminal natural gas in the Maritimes.

In order to satisfy concerns expressed by intervenors regarding direct access to the Brunswick Pipeline, EBPC has stated that it would be open to, and would make the necessary arrangements for, any third-party interested in attaining direct access to its Pipeline through the construction of third-party sponsored connections. [See section 7.1 for further discussion of access matters.]

> ***Views of the Board***
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> As previously found, the Board is of the view that one aspect for the justification of this Project is its ability to provide an opportunity for access to a new source of natural gas supply to the Maritimes. While some parties expressed concerns regarding the ability of Maritime Canada markets to access the incremental gas supply provided by the Project, the evidence before the Board indicates that Irving Oil is the largest user of natural gas in Maritime Canada. Therefore, Irving Oil's access to the gas supply supports the Board's finding that there will be Canadian access to the Project's gas supply. Furthermore, Maritime Canada could also access this new natural gas supply source, to fulfill current and anticipated future natural gas needs, through the use of backhauls, swaps and direct connection to the Brunswick Pipeline.
>
> Based on the record in this proceeding, including the current and anticipated use of natural gas, the Board is of the view that it is reasonable to conclude that the current and anticipated needs of Maritime Canada's market would be adequately met. [See section 7.2 for further discussion.] This Project would make new natural gas supplies accessible to the market, and the Board is of the view that market forces would adequately govern the distribution of natural gas within the Maritimes and the Northeast US. Based on the evidence noted above, the Board is not persuaded that imposing a condition, such as the one proposed by EGNB to reserve a certain amount of natural gas for a specific region in an open market, is necessary.

4.3 Markets and Need for the Proposed Pipeline

4.3.1 Demand for Gas

Concentric Energy Advisors (CE Advisors), retained by EBPC to conduct a study of demand for natural gas, projected significant incremental design day demand growth across Atlantic Canada and much of the Northeast US, in both the local distribution company (LDC) and power generation segments of the market. Specifically, by 2010, the incremental design day demand requirement was projected to be 1,311,000 MMBtu/day, of which 58 percent or 765,000 MMBtu/day is LDC driven, and 42 percent or 546,000 MMBtu/day is due to gas-fired generation requirements. By 2030, the incremental gas requirement was forecast to be

7,621,000 MMBtu/day, with LDC and gas-fired generation segments each representing approximately 50 percent of the projected demand.

CE Advisors indicated that, for Atlantic Canada, natural gas demand from the electric generation segment could increase significantly as a result of the introduction of a new gas supply source, such as the supply from the Canaport™ LNG Terminal, and this would diversify the natural gas supplies in Atlantic Canada. In addition, climate change initiatives are favourable for natural gas, since natural gas is the cleanest burning fuel of the coal, oil, and natural gas options. Therefore, a long-term regional supply of this commodity could support an increased interest in gas-fired power generation in the future.

According to CE Advisors, the increased demand for natural gas in Atlantic Canada and Northeast US would likely be met through an increase in LNG imports. CE Advisors stated that it expects that LNG would supply approximately 16 percent of the US gas requirements by 2030, which is a significant increase over 2005 when LNG met only 3 percent of the US natural gas demand.

Views of Interested Parties

Irving Oil submitted that it would continue to honour its contractual commitments on the M&NP system, including its commitments on the SJL. Irving Oil maintains that it has interests in this Project as an indirect holder of a 25 percent interest in the Canaport™ LNG Terminal; as a buyer of Sable supply concerned about future supply security; as an existing shipper on M&NP, which like others recognizes the opportunities that the Brunswick Pipeline would provide for transactions on that system; and as a significant user of natural gas in Maritime Canada that believes strongly in the opportunities to further develop the market and its underlying infrastructure.

Some intervenors argued that there was no evidence on the record to indicate whether Irving Oil intends to receive this supply directly at the Canaport™ LNG Terminal or via the proposed Brunswick Pipeline. Therefore, the benefits to Maritime Canada of adding an incremental supply source to the Maritime Region could be satisfied without the proposed Project. In questioning CE Advisors, intervenors raised a concern that the incremental supply source would be used to fill a need in the Northeast US and not a need in Atlantic Canada. An issue was also raised about whether current SOEP production would be able to adequately fulfill current Maritime regional natural gas demand.

EBPC's Response to Concerns Raised

In EBPC's view, existing and potential customers need and must secure long-term natural gas supply in order to engage and commit to growing markets. Without a long-term supply, these markets could not grow, and the opportunities and related benefits would be missed.

EBPC submitted that the proposed Project provides the necessary connection of a new natural gas supply source to the mature anchor market of the Northeast US and to the still relatively immature but potential growth markets of the Maritime region. The testimony of Mr. Reed for CE Advisors suggested that, at present, the supply and demand for natural gas in the Maritimes was in balance, but the situation was one where demand had been very much constrained by the lack of secure long-term supplies to the Maritimes. Assuming that the Maritimes continued to rely primarily on SOEP supplies, CE Advisor's projections are that within the next five years, a level of deliverability from SOEP would be reached that would limit SOEP's commercial practicability in terms of continuing to flow gas on a significant basis.

Views of the Board

The Board is of the view that it is reasonable to conclude from the evidence that both maintenance of existing levels of demand for natural gas and potential growth in natural gas demand within the Maritimes could be satisfied through the introduction of a new natural gas supply source. Further, the Board is of the view that increased use of natural gas over other fuels, such as coal and oil, could provide potential benefits to the Maritimes.

While there is the possibility that a portion of the Maritime Canada demand for the Canaport™ LNG Terminal natural gas could be satisfied without using the applied-for pipeline facilities, the Board is of the view that Maritime Canada demand alone is not currently substantial enough to attract the necessary investment in LNG infrastructure to bring a new source of natural gas supply to the Maritimes and Northeast US. Based on the evidence on the record, the Board finds it reasonable to conclude that a project providing the means of transporting natural gas to an anchor market is integral to the viability of that project providing access to a new natural gas supply source. The Board is persuaded that the Northeast US provides such an anchor market for the natural gas from this Project, and therefore the demand for gas in the Northeast US ultimately underpins the investment required in bringing incremental supplies to the Maritimes and Northeast US.

Furthermore, the Board notes that there are a number of methods that may be used to allow the Maritimes to access this gas through the use of the Brunswick Pipeline, including through direct connection, swaps and backhauls. Therefore, the Board is of the view that the Brunswick Pipeline provides the means for this incremental source of gas supply to provide a benefit to energy consumers in the Maritimes.

4.3.2 Price of Natural Gas

EBPC submitted that a challenge to market growth in the Maritimes has been the dramatic increase in the price of gas since it became available to markets in the Maritimes. The price of natural gas in the Northeast US was in the order of $2/MMBtu in October of 2001, but has been as high as $15/MMBtu in October of 2005 and averaged $10/MMBtu in 2005. The Applicant stated that increased natural gas supply in the Maritimes and Northeast US could assist in stabilizing Maritime pricing and thereby could facilitate market penetration.

Views of Interested Parties

Repsol stated that adding a new source of supply could potentially result in lower prices and facilitate the development of additional natural gas markets in Canada.

NSDOE submitted that there are certain features of the Brunswick Pipeline Project that make it doubtful that transparency and price discovery would be improved. For instance, there would be a sole shipper and an exclusive marketer, and if Maritime Canada markets were to acquire benefits from the gas supplied by the Brunswick Pipeline, it would likely be through secondary market transactions that would not be transparent.

EBPC's Response to Concerns Raised

EBPC suggested that the reduced transportation charges to SOEP producers on M&NP US that would be enabled by the gas supply from the Brunswick Pipeline, and the potential for lower transportation tolls to be obtained through the secondary market on M&NP, could hypothetically lead to lower prices in the Maritimes than in the Northeast US.

> ### *Views of the Board*
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> The Board appreciates the concerns about price transparency and price discovery expressed by some parties; however, the Board is of the view that open and competitive markets within the Maritimes will be encouraged through the increased development of competitive regional markets for natural gas. In the Board's view, the introduction of an incremental source of natural gas supply to the Maritimes and the Northeast US could alleviate some of the supply/demand pressure in the Northeast US anchor market, which in turn could decrease potential short-term price volatility and facilitate long-term price stability for the region. The stabilization of prices could subsequently help facilitate the growth of the natural gas market in the Maritimes. These benefits provide an opportunity for the markets to work more efficiently, which is a benefit to Canadians in and of itself and is part of the NEB's stated Goal 3.[22]

4.4 Competition

Views of Interested Parties

Several intervenors expressed the concern that Irving Oil's exclusive marketing arrangement to market natural gas from the Project in the Maritimes may impede competition, EGNB's franchise rights, and the realization of overall benefits.

One intervenor suggested that incremental supply enhances supply diversity and would enhance gas commodity competitiveness rather than impede it.

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[22] Goal 3 of the National Energy Board states "Canadians benefit from efficient energy infrastructure and markets."

Irving Oil stated that it intended to work closely with both EGNB and Heritage Gas to ensure that benefits from this new and diverse supply of natural gas would be available in the Maritimes.

EBPC's Response to Concerns Raised

EBPC stated that the natural gas market is a competitive market. Competitive constraints from SOEP, Corridor Resources and other supplies in the US would prevent the Irving/Repsol partnership from impeding trade.

EBPC submitted that there is no evidence that the proposed marketing arrangement between Repsol and Irving Oil would impair the competitiveness of gas commodity transactions in the Maritimes.

Views of the Board

The Board is of the view that it is not likely that competition within the Maritimes and the Northeast US will be impeded through the implementation and subsequent operation of the proposed pipeline. The Project would introduce a new source of natural gas supply to the Maritimes, and this added source of supply could act as an impetus, not an impediment, for competition. Furthermore, the Board is not persuaded on the evidence submitted that the arrangements surrounding Irving Oil's position as sole marketer within the Maritimes would create a non-open or non-competitive market environment within the Maritimes. Should parties have a concern that anti-competitive behaviour is occurring, the Board notes that there are complaint and investigative processes available to address this type of behaviour under the *Competition Act* (RSC 1985, c. C-34.).

Chapter 5

Consultation

The expectations for an applicant regarding consultation are set out in section 3.3 of the Board's Filing Manual. The Board expects that applicants would consult with affected parties for all projects. Applicants are responsible for justifying the extent of consultation carried out for each application. The Board also expects that a consultation program will continue throughout the regulatory process, as well as during the construction and operation phases of a project. The following information should be provided within an application:

- principles and goals of the consultation program;
- design details of the consultation program; and
- the outcome of implementation of the consultation program, including how public input influenced the design, construction, or operation of the project.

As part of its overall assessment of a proposed project, the Board also considers land matters related to route selection, the lands required for the project, and the land acquisition process. For additional details regarding the consultation associated with land matters, refer to section 6.3.

5.1 Public Consultation Program

EBPC's predecessor in the Project, M&NP, and its consultants, designed and implemented a consultation program for the Project targeted at various potential stakeholders, including the general public, landowners, government and municipal agencies, Aboriginal peoples, other interest groups and associations. EBPC adopted and committed to the consultation program initially established by M&NP.

In its application, EBPC stated that the purpose of the consultation program was to:

- provide sufficient information to stakeholders about the Project in a timely manner;
- provide stakeholders an opportunity to have meaningful input into decisions with respect to project planning and development;
- obtain environmental and socio-economic information from those stakeholders most familiar with the Project area to enable the identification of constraints, which may affect project location or mitigation measures;
- identify issues and concerns of those stakeholders potentially affected by the Project; and
- establish communication with stakeholders to facilitate issue resolution and ongoing communication as the Project moves through the planning, construction and post-construction phases.

EBPC stated that the following consultation activities had been undertaken for the Project:

- In mid-August 2005, M&NP placed a Project announcement in provincial and local newspapers to provide early public notification of the Project.
- Open house sessions were held on September 20, 21 and 22, 2005 in Saint John, St. Stephen and Pennfield, NB respectively. The open houses served to introduce the Project and provide information to the general public on such items as the EA process, potential pipeline corridors, a description of the pipeline construction process, the Project regulatory and approvals process, lands-related information and other Project details.
- An additional open house was held in Saint John on December 6, 2005 to present information on the Project and to introduce potential pipeline corridor variants that would largely avoid Rockwood Park.
- A variety of techniques were used to provide information to the public and to elicit feedback about the Project, including: questionnaires; newspaper advertisements; radio spots; 1-800 phone number; email address; project website; newsletters, including a corridor map delivered to every mailing address in Saint John and the communities along the proposed corridor; site visits; one-on-one and group meetings; and establishing a Lands office in the City of Saint John.
- Contacts were made with individual landowners (717 open files as of November 2006).
- During the summer of 2006, three community meetings and walk-arounds were held (Milford, Millidgeville and Champlain Heights) at the request of the general public and their elected leaders.

The geographic region included in the public consultation program covered the area between the Canaport™ LNG Terminal on Mispec Point in Saint John, NB and the international border near St. Stephen, NB. EBPC submitted that stakeholder groups with an interest in the Project had been identified within that area. Communities within 10 km of the preliminary preferred corridor were solicited to participate in the open houses and public consultation program for the Project. EBPC stated that it attempted to ensure that all potential stakeholders located within the corridor, including directly affected landowners, were contacted directly, while potential stakeholders located beyond the corridor would receive general public notification through open houses, mailings and other commonly-used means of notification.

Views of Interested Parties

Several participants submitted that the consultation program implemented by EBPC was inadequate. The focus of the submissions related primarily to the public consultation process and, in particular, to the timing of consultation, the quality and responsiveness of the consultation program, and the ability of stakeholders to have meaningful input into decisions regarding project planning and development. The following paragraphs highlight some of the issues and concerns that were raised during the hearing process.

FORP claimed that EBPC had not fulfilled the goals of its consultation program nor had it fulfilled the regulatory requirements for consultation. There was no possibility for EBPC to gather "feedback from affected parties in the design and planning" because EBPC had presented a completed plan at its first open house. EBPC did not provide "sufficient information to stakeholders about the Project in a timely manner." Further, FORP submitted that EBPC's lack of engagement with the main stakeholder, the community of Saint John, indicated its lack of concern for that community. FORP also argued that EBPC had not reviewed safety issues with the SJFD Chief, the EMO or medical experts prior to choosing the preferred pipeline route.

One intervenor claimed that the EBPC and M&NP land agents had been evasive, deceitful, and unprofessional.

Another intervenor submitted that little weight should be accorded to EBPC's success in gaining the support of the co-stewards of Rockwood Park (i.e., the Saint John Horticultural Association and the City of Saint John) for the following reasons:

- both referenced groups had chosen to ignore their responsibility to protect Rockwood Park from being subjected to these kinds of uses;
- Saint John City Council had twice voted unanimously in favour of the marine route;
- no input from the public, whose park it is, was sought by Council before its abrupt change of conviction and acceptance of an easement through Rockwood Park that lasts until the end of time;
- over fifteen thousand petitioners expressed opposition to a pipeline through their City and their Park; and
- the support of those two groups was only obtained just days before the Oral Hearing began when the "inducement of some $5.3 million dollars, contingent upon NEB approval of the application for a route through the Park, resulted in the abandonment of all regard for… recent motions passed, their commitment to intervene on behalf of citizens, and overwhelming public sentiment."

One letter of comment writer stated that when speaking with the company, EBPC did not mention the HDD noise, the period of time it would take, the noise levels people would be expected to tolerate, or that the HDD would be going on for 24 hours a day. The exit point for the proposed HDD would be approximately 94 m from the writer's home. The writer claimed that it appeared that the company's representatives had not told the residents all of the facts.

EBPC's Response to Concerns Raised

EBPC defended its consultation process by stating that it had worked very diligently to reach out to the public and a number of project stakeholders. EBPC submitted that it would continue to work in partnership with the community of Saint John and was very pleased with the progress made to date.

EBPC rejected the suggestion that its consultation activities had been inadequate. While some of the intervenors may not agree with the outcome, EBPC argued that the development of this Project featured an open, interactive consultation process that resulted in changes to the proposed corridors, the introduction of specialized construction techniques and the dissemination of considerable information about the construction and operation of pipelines in both urban and rural environments.

EBPC considered feedback from stakeholders and amended its application to reflect minor amendments to the preferred corridor. EBPC remains committed to its ongoing consultation program. Should it become apparent that its proposals could be improved, EBPC would be prepared, in an open and cooperative manner, to make the appropriate changes, subject to the Board's approval.

EBPC secured the support of critical intervenors, such as existing shippers on the M&NP system (Heritage Gas Limited, EGNB, Nova Scotia Power Incorporated), New Brunswick Power Transmission Corporation (NB Power), the Saint John Horticultural Association, the City of Saint John, the Union of New Brunswick Indians (UNBI)[23], and the MAWIW Council[24]. EBPC has also acquired support for its proposed routing from most owners along the RoW that the pipeline would share from the Saint John city limits to the international border at the St. Croix River.

Further, as a direct result of the consultation and EBPC's undertakings, the City (with direct municipal responsibility for Rockwood Park) and the Horticultural Society (with stewardship over Rockwood Park) now support the Project and the preferred route.

EBPC argued that it was doubtful that those who were asked to sign a petition over an extended period of months had been provided with the same information or possessed the same expertise as the Fire Chief or other municipal officials, particularly where they purported to object on the basis of impacts to such things as municipal infrastructure. In EBPC's view, the process had worked as it was supposed to: contact was made; consultations took place; information gaps were filled; uncertainties clarified; and commitments were made to allay initial concerns.

Regarding the FORP argument that EBPC did not review safety issues with the SJFD Chief, EMO or medical experts prior to choosing the preferred pipeline route, EBPC stated that the record was quite clear that the pipeline route itself had not yet been chosen, as the detailed routing process was ongoing. However, in discussing public safety related to the preferred corridor with the SJFD Chief, EBPC submitted that it had addressed all of the recommendations that were made in the SJFD Risk Analysis report.

EBPC stated that the public had not been notified of the Project until there was a project. A precedent agreement was signed between M&NP and Repsol in July 2005. Immediately after the signing, a notice of intent to prepare an EA was placed in local French and English newspapers followed by newspaper ads, radio spots and flyers distributed regarding the September open houses.

Regarding the timing of the announcement of the financial endowment, EBPC stated that it had been involved in discussions with the City and the Horticultural Society for some time about how EBPC could make a contribution to the community, as well as address other issues. EBPC worked with the City to resolve those other issues and made a number of commitments to City

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[23] UNBI is the Aboriginal organization representing the following 12 First Nations in New Brunswick: Madawaska, Woodstock, Kingsclear, St. Mary's, Oromocto, Eel River Bar, Pabineau, Metepenagiag, Eel Ground, Indian Island, Buctouche, and Fort Folly

[24] The MAWIW Council was formed by the Chiefs of the three most populous First Nations in New Brunswick: Big Cove, Burnt Church, and Tobique.

Council concerning those issues. That process lasted until late October after which EBPC made the offer of the endowment.

EBPC submitted that it did listen, and did hear what the general public had been saying. The balance of information from all sources led to the selection of the preferred corridor. The fact that EBPC did not act on the wishes of any particular intervenor in no way suggested those intervenors' concerns were not heard or taken into consideration.

5.2 Aboriginal Consultation

EBPC stated that an Aboriginal consultation process was initiated in July 2005 in order to inform the First Nation communities of the Project objectives, timelines, routing, regulatory processes, and proposed construction activities. This process was designed to be consistent with the basic principles of EBPC's Aboriginal consultation program and with NEB filing requirements. The Aboriginal consultation principles, listed below, describe EBPC's framework for interaction with First Nations:

- early in the planning phase of the Project, identify Aboriginal communities with traditional interests in the Project area that could potentially be affected by the Project;
- inform potentially affected Aboriginal communities throughout the various phases of the Project by sharing information on key Project specifics in a clear and timely manner;
- create opportunities for meaningful input and advise the communities of opportunities to communicate with the NEB;
- understand and respond to any issues or concerns in an effort to ensure those issues or concerns are resolved or mitigated; and
- continue ongoing communications with the Aboriginal communities throughout the construction and post-construction phases with a view to maintaining and developing long-term relationships required for the operation of the facilities.

EBPC stated that it had applied and would continue to apply these principles and initiatives throughout the consultation process, the ensuing construction period, as well as into ongoing operations.

The Aboriginal strategy identified for the Brunswick Pipeline included:

- hiring an Aboriginal Relations Manager;
- funding for two Aboriginal community liaisons;
- meetings with the First Nation leadership (Chief and Council);
- meetings with Aboriginal organizations;
- open houses in First Nation communities; and
- funding to conduct a Traditional Ecological Knowledge (TEK) Study.

Views of Interested Parties

On 20 October 2006, the MAWIW Council of First Nations filed a letter indicating that, with the conclusion of twin agreements with M&NP and EBPC, the MAWIW Council supported the Brunswick Pipeline application.

On 26 October 2006, UNBI filed a letter stating it was withdrawing as an intervenor in the NEB hearings because it had reached a benefits agreement with EBPC. UNBI also withdrew its evidence and information requests.

One intervenor argued that EBPC had not consulted with the Passamaquoddy First Nations Peoples of NB. Therefore, no agreement existed between EBPC and the Passamaquoddy First Nation.

One oral statement provider stated concern that the Project would be located within Passamaquoddy territory, and yet the Passamaquoddy people had not been properly consulted. The oral statement provider went on to claim that the Passamaquoddy Chief spoke about people currently using plants harvested in and around the pipeline corridor for food and medicine.

EBPC's Response to Concerns Raised

In the early stages of the Project, the Applicant engaged in Aboriginal consultations directed at securing Aboriginal support for and involvement in various project activities. Careful attention was also paid to mitigating impacts upon traditional uses along the pipeline route. EBPC stated that the process had been open and inclusive. Those consultations resulted in agreements with the Province's two Aboriginal organizations, UNBI and the MAWIW Council, both of which had indicated their support for the timely approval of the Project.

The agreements include provisions for environmental monitoring and protection of Aboriginal heritage and cultural resources. They also encourage capacity building within First Nations through training, scholarships, and organizational development funding. Aboriginal inclusion commitments made by EBPC would lead to contracting opportunities for First Nation businesses. The agreements also contain provisions for the continued engagement of liaison staff, oversight committees, and ongoing meaningful dialogue.

EBPC committed to establishing a process through which any issues, including those that may be raised by the Passamaquoddy, could be communicated and considered by EBPC through its Aboriginal Manager. Further details about EBPC's evidence on this matter are summarized in the NEB's EA Report, at section 7.2.4.9.

Views of the Board

> The NEB promotes the undertaking, by regulated companies, of an appropriate level of public involvement, commensurate with the setting, and the nature and magnitude of each project. This recognizes that public involvement is a fundamental component during each phase in the lifecycle of a project (i.e., project design, construction, operation and

maintenance, and abandonment) in order to address potential impacts. The Board expects companies to pursue approaches that strengthen democratic processes and build the social and human capital of local communities.

Regarding the design of a project-specific consultation program, the Board expects an applicant to indicate why the design of its consultation program was appropriate for the nature and magnitude of the project. There were several examples illustrating how the design of EBPC's consultation program was appropriate, including: the consultation program was initiated early in the process; modifications were made to the Project in response to concerns raised; agreements of support were reached with key stakeholders; multiple techniques were used to inform the public about the Project; and commitments were made by EBPC to continue consultation efforts as the Project moves through the planning, construction and operations phases.

However, there were also several examples highlighting how certain areas could have been improved, including: the perception of incomplete notification of landowners around the proposed HDD sites; allegations concerning the unprofessional behaviour of some of EBPC's land agents; the negative public perception associated with EBPC's approach to secure support from the City of Saint John; and failure to identify whether the Passamaquoddy First Nation was a potentially affected party. The Board notes that EBPC adopted the consultation plan and protocol established by M&NP, so both companies share some responsibility for the areas that could have been improved. EBPC is the company accountable for the ongoing consultation program, and therefore the Board notes that EBPC has the responsibility of ensuring the success of the ongoing consultation program.

Regarding the implementation of a consultation program, the NEB expects an applicant to include a description of the outcomes of the public consultation program conducted for the project. EBPC filed such a description for the Project. Members of the public were also given an opportunity to communicate directly with the Board and they took advantage of this opportunity to provide comments on the outcome of EBPC's consultation program through interventions, oral statements, and letters of comment. Given the evidence on the outcome of the consultation program from EBPC and members of the public, it is clear that a number of hearing participants were not satisfied with EBPC's explanation of why no further action was required to address public concerns or comments. The Board has taken into consideration these comments from members of the public in making its public interest determination.

The Board notes EBPC's comments near the end of the evidentiary portion of the hearing, that it recognizes the need to conduct business in an appropriate manner in order to build a reputation as a respected member of the business community and community at large. The Board also notes that EBPC has been successful in securing the support of several intervenors; however, the Board is of the view that EBPC has not been effective in fully engaging the public to date. The current status of the relationship between EBPC and the public could create difficulties for EBPC to become fully engaged as a community partner, and to collaboratively address the ongoing needs of the community with respect to the Project. In order for the public to obtain a fuller understanding of EBPC's commitments with respect to the Project to date, should a Certificate be issued, the Board will further require EBPC to file with the Board and post on its company website, 120 days before the planned start of construction, a table listing all commitments made by EBPC during the proceedings, conditions imposed by the NEB, and the deadlines associated with each (condition 3 in Appendix V). In addition, in order to help improve this relationship in the future and given the amount of interest in the topic, the Board will require, in any Certificate that it may issue, that EBPC file with the Board, for approval, a public consultation program for the construction and operations phases of the Project at least 75 days prior to the planned start of construction. The program shall demonstrate how meaningful and effective public consultation will be achieved during construction and operation, while allowing flexibility for continuous improvement (condition 4 in Appendix V).

The Board believes that these conditions would be critical to ensuring that the foundation is properly established for EBPC and the local communities to be able to effectively interact with each other. The public consultation program should establish a direct communications link between EBPC and the public and provide a means to have all public questions and concerns considered and addressed, if necessary, by the appropriate party. At a minimum, the Board expects EBPC to provide regular progress reports to the community beginning no later than 60 days before the planned start of construction, and continuing every six months for at least two years after the pipeline is commissioned. These progress reports should also include:

- an update on the status of project-related activities;
- a clear summary of results of recent project-related activities;
- summaries from any public meetings; and
- a description of how EBPC has fulfilled or is continuing to fulfill its commitments and conditions, previously submitted pursuant to condition 3.

Given conditions 3 and 4 described above, and EBPC's commitment to ongoing public consultation and corporate responsibility, the Board finds that the consultation program undertaken by EBPC is consistent with the requirements of the NEB's Filing Manual.

In addition, the Board acknowledges and appreciates the time and effort members of the public devoted to the process and the personal contributions they made. The Board notes the frustration expressed by some of the members of the public due to a lack of familiarity with a quasi-judicial process; however, the Board further notes that this lack of familiarity did not impede participants from submitting relevant evidence which the Board analyzed and weighed during its deliberations.

Chapter 6

Environment, Socio-Economic, Routing and Land Matters

6.1 Environmental Assessment under the CEA Act

As indicated in Chapter 1, the federal Minister of the Environment approved the Board's use of its own public hearing process for assessing the environmental effects of the Project as a substitute for an EA by a review panel under the substitution provisions of the CEA Act. The NEB EA Report set out the rationale, conclusions and recommendations of the Board in relation to its review of the Project under the CEA Act and included a discussion of recommended mitigation measures and follow-up programs.

The NEB EA Report, included as Appendix VII, reflects parties' views and the Board's assessment of the environmental effects of the Project and mitigation measures based on the Project description, factors to be considered and the scope of those factors. Since the full report, including the Executive Summary, is in the Appendix, no portions of the NEB EA Report have been duplicated in this section.

Pursuant to subsection 37(1.1) of the CEA Act, the responsible authorities took into consideration the NEB EA Report and, with the approval of the Governor in Council, responded to the EA Report (government response). The government response was approved by the Governor in Council on 17 May 2007 and is included as Appendix VIII to these Reasons. The government response accepts all of the Board's recommendations in the EA Report and provides further expectations, which the Board has taken into account.

The Board notes that the government response identifies specific elements for inclusion in the Environmental Protection Plan (EPP). These items were discussed in evidence during the proceeding. The Board would require[25] EBPC to consult with relevant regulatory authorities regarding the mitigation outlined in the EPP. This consultation provides an opportunity for relevant departments to verify that elements, such as those identified in the government response, have been addressed.

With respect to environmental follow-up programs, the government response suggests that a specific allowance be made to include other valued ecosystem components, such as Species at Risk, Species of Conservation Concern, and migratory birds, subject to review of completed field studies and surveys and the expert opinion of federal departments. The Board notes that EBPC has committed to consulting with regulatory agencies, including Environment Canada, in 2007 following the submission of the survey results with respect to any issues and mitigation to be developed. The Board would require[26] EBPC to carry out its commitments and consult with relevant regulatory authorities with respect to the mitigation included in its EPP. The Board notes that discussion of any additional follow-up programs that federal departments determine to be appropriate could occur in the context of the development of the mitigation and associated follow-up in the EPP.

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[25] Condition 5 in Appendix V to these Reasons.

[26] Conditions 2 and 5 in Appendix V to these Reasons.

The government response suggests that the wetland follow-up program be designed to address effects that may endure beyond EBPC's proposed five-year monitoring period and that the determination of appropriate compensation for unavoidable losses be established independent of the amount of time required for natural vegetation. The Board notes that its EA Report indicates it would be appropriate that the follow-up program schedule and associated reporting schedule be designed to address any effects that may endure beyond EBPC's proposed five-year monitoring period. The Board also notes EBPC would be required[27] to develop the follow-up program in consultation with appropriate regulatory agencies and stakeholders. Through this consultation, relevant federal departments would have the opportunity to discuss with EBPC the design of the follow-up program and the determination of compensation for unavoidable losses.

The government response reiterates the Board's requirement that the proponent shall prepare an Access Management Plan and an Emergency Procedures Manual. It further adds that these plans shall be prepared in consultation with the appropriate expert federal authorities in a manner consistent with their mandated responsibilities and interests. The Board notes that consultation would be required[28] and expects EBPC to take into account the government response in planning its consultation program.

The Board has considered the government response and adopts all of the findings, rationale and recommendations made in the NEB EA Report. These recommendations will be included as conditions in any Certificate that the Board may issue.

6.2 Socio-Economic Matters

The NEB defines a socio-economic effect in respect of a project as any effect on a socio-economic element found in Table A-5 of the *Filing Manual*, including direct effects, as well as effects resulting from a change in the environment. In order to mitigate the socio-economic impacts of projects, it is important to deal with both the intended and unintended, positive and negative impacts. Awareness of the differential distribution of impacts among different groups in society should always be of prime concern in a socio-economic impact assessment.

EBPC filed a socio-economic assessment for the Brunswick Pipeline Project that considered the potential effects the Project would have on various socio-economic elements. The NEB EA Report sets out the rationale, conclusions and recommendations of the Board in relation to its review of the Project under the CEA Act. The NEB EA Report discussed the potential socio-economic effects resulting from a change in the environment, including effects on heritage resources, human health, human occupancy and resource use, social and cultural well-being, and the current use of lands and resources for traditional purposes by Aboriginal persons. The conclusion reached in the NEB EA Report was that, provided all commitments made by EBPC in its application and undertakings during the GH-1-2006 proceeding were upheld, and the Board's recommendations were implemented, the Project would not be likely to result in significant adverse environmental effects.

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[27] Condition 6 in Appendix V to these Reasons.

[28] Conditions 11 and 19 in Appendix V to these Reasons.

The Board has considered the remaining direct socio-economic effects under the NEB Act in this section of the Reasons, including effects on employment and economy, services, infrastructure, and property values.

6.2.1 Employment and Economy

EBPC stated that the Project lies within the Saint John Census Metropolitan Area (CMA) and Charlotte County. These jurisdictions have partial responsibility for the development and implementation of economic development strategies for their respective areas. The Saint John CMA is New Brunswick's largest urban centre with a population of approximately 140,000.

The Province of NB has primary responsibility with respect to the management of economic development throughout the Province. In 2001, NB's gross domestic product (GDP) was estimated to be approximately $27 billion. Some of the leading sectors of the economy include construction, manufacturing, transportation, finance, and retail trade. In 2001, NB recorded a median household income of $39,951, a labour force participation rate of 63.1 percent, and an unemployment rate of 12.5 percent.

According to EBPC, during construction, the urban portion of the Project (i.e., the portion within Saint John CMA) is estimated to involve approximately 340 individuals in various jobs, while the rural portion (i.e., the portion within Charlotte County) would involve approximately 580 construction workers, plus supporting staff. These positions would be of varying duration. Total direct employment was estimated at approximately 373 person years, full-time equivalent (FTE). Total Project expenditures were estimated to be $350 million. The total GDP impact from construction activities were estimated at $137 million for the Province and $210 million for the rest of Canada. The gross economic impact was estimated at $529 million for NB and $693 million for the rest of Canada.

EBPC stated that during operation and maintenance, total direct employment was estimated at approximately four FTEs. The overall expenditure was estimated at $3.4 million annually. This expenditure would affect various components of the economy, both within NB and in the rest of Canada. The annual GDP impact from operation and maintenance activities was estimated at $2 million for the Province and $2 million for the rest of Canada. The gross economic impact was estimated at $4 million for NB and $5 million for the rest of Canada. The Project would also contribute tax revenues to various levels of government. The preliminary estimated annual taxes included $3.3 million (property), $2 million (federal income tax), $1 million (provincial tax), and $1 million (capital tax) for a total of $7.3 million.

Views of Interested Parties

Intervenors in favour of the Project argued that the Project would provide benefits of significance for the City of Saint John and the Province. Intervenors submitted that the Brunswick Pipeline was an infrastructure investment that would support Saint John's "energy hub" industrial development strategy, and as such, the City and region should realize spin-off benefits in terms of jobs and investment from further industrial growth spurred by the availability of long-term gas supply.

Several intervenors stated that they could not agree that the "energy hub" strategy was good for Saint John, or that the proposed Project would therefore be a benefit to the community, and believed quite the opposite. In order to support the argument against the "energy hub" strategy, intervenors claimed that Saint John had more industries than any other NB town and also had the highest poverty rates; therefore, it was unclear how the proposed pipeline would accomplish what present industries had not been able to accomplish.

Regarding employment impacts, some intervenors highlighted that the Project benefits would be minimal as there would be temporary jobs during the expected one-year construction phase, and a total of only four permanent jobs post-construction. Regarding economic impacts, the Project would generate annual tax revenue of only $1.3 million, with 45 percent going to the provincial government and 55 percent to the municipal government, an amount which intervenors believed to be insignificant.

EBPC's Response to Concerns Raised

EBPC submitted that the City and region should realize spin-off benefits in terms of jobs and investment from further industrial growth. Project construction was expected to create direct, indirect, and induced employment and income. Operation and maintenance of the Project would require equipment and personnel, and these effects, although smaller in comparison to the construction phase, were expected to be positive.

EBPC indicated that anticipated levels of local and regional economic participation in the Project, in comparison to the total project requirements, were expected to be proportional to those experienced during construction of the M&NP mainline, which were approximately 70 percent, although this would depend on the current labour supply at the time of construction. EBPC submitted that it intended to communicate labour and material requirements to labour unions and local suppliers in advance of tenders to allow the local markets time to prepare for bids and adjust the labour force and training requirements where practicable. This communication may include vendor information sessions. Working with the First Nation organizations, First Nation leadership and the Aboriginal liaisons, EBPC would develop a First Nation contractor list and an Aboriginal human resource list and develop communication protocols to ensure that contracting and employment opportunities would be advertised and shared in a timely fashion with these identified individuals. One element of this plan would include an agreement with the First Nations of NB for an Aboriginal "set-aside" that would target two percent of all third-party contracted services for NB Mi'kmaq and Maliseet businesses.

EBPC submitted that the benefits of the Project would be shared by many, and that this new source of long-term gas supply was welcomed by participants in the gas markets located in Maritime Canada. EBPC further submitted that, over time, willing buyers would contract for the new long-term gas supply both to diversify existing supply and to support market growth.

Views of the Board

The Board notes that during the construction phase of the Project, there would be numerous economic and employment benefits. There would also be numerous inconveniences and disruptions for the general public associated with the construction phase of the Project, which have been considered by the Board in other sections of the Reasons and the EA Report.

The Board also notes that, during the operations phase, there would be economic and employment benefits for Saint John and the region. The weight to be attributed to these benefits is debatable because of the limited significance of these benefits, and the offset of these benefits with matters which tend to be difficult to quantify, such as the lack of certainty of increased access to gas for local residents.

As further discussed in Chapters 4 and 7, Maritime Canada access to an additional supply of natural gas through the Brunswick Pipeline has the potential to generate economic benefits for the area. If demand exists in the future in Saint John for additional supplies of natural gas, then the Board expects that parties will be able to reach a mutually acceptable agreement to serve the local market.

With respect to the potential socio-economic impacts of the "energy hub" strategy, the Board notes the concerns of certain parties and is of the view that a determination on the appropriateness of this strategy is beyond the mandate of the Board under the NEB Act.

The NEB promotes the identification and consideration, by regulated companies, of the effects of projects on individuals, groups, communities and societies; including a project's positive and negative socio-economic impacts and any proposed enhancement and mitigation measures.

Some industry stakeholders have investigated ways to turn impacted people, communities and societies into positive beneficiaries. The Board notes that some of these ways have been specifically related to impacts of the proposed projects while others have been related to local or regional interests.

The Board is of the view that EBPC could have pursued additional opportunities to improve its role and contribution to Saint John and Maritime Canada. The Board recommends that EBPC re-evaluate whether its role and contribution within Saint John and Maritime Canada have been maximized. Seeking ways in which EBPC could enhance its role in and commitment to the community could improve the public's perception of EBPC, its commitment to responsible corporate conduct and its desire to build a long-term partnership with Saint John and other communities throughout New Brunswick.

Notwithstanding the observations above about EBPC's role in the community, the Board finds, with respect to the impacts of the Project, that its positive and negative impacts on employment and economy have been adequately identified by the parties and considered by EBPC. Further discussion of the weight attributed to these benefits and burdens and the balance of overall benefits and burdens of the Project is found in Chapter 8 of these Reasons.

6.2.2 Services

The Project has the potential to impact both local services (e.g., accommodation), and emergency and medical services (e.g., health care, policing and fire protection).

The Saint John Regional Hospital is a 700-bed acute care teaching hospital, and is accessed via either University Avenue or Sandy Point Road. It is NB's largest regional hospital and one of the largest in eastern Canada. EBPC stated that the Saint John Regional Hospital is located approximately 650 m from the preferred corridor and EBPC did not expect that it would fall within the Project's EPZ.

Views of Interested Parties

Many intervenors were concerned about the proximity of the Saint John Regional Hospital to the pipeline corridor, and the potential consequences of any incident on the pipeline. One intervenor argued that EBPC had not reviewed safety issues with the SJFD Chief, EMO or medical experts prior to choosing its preferred pipeline corridor.

Another intervenor argued that taxpayers and the City would end up bearing additional costs associated with hospital and fire services.

One oral statement provider noted that the hospital was not ready for any major incident because the hospital had not practiced a major exercise in over 10 years.

EBPC's Response to Concerns Raised

EBPC submitted that it would engage the SJFD and other first responders in southern NB in the development and finalization of an ERP. This plan would be compliant with regulatory requirements and achieve the concurrence of the SJFD. EBPC's emergency planning, first responder training and public education programs would be subject to NEB requirements under the OPR-99 and CSA Z731. Further discussion of EBPC's ERP and public safety is contained in Chapter 3 and the EA Report.

Regarding the argument that EBPC did not review safety issues with the SJFD Chief, EMO or medical experts prior to choosing the pipeline route, EBPC claimed that the record was quite clear that the pipeline route itself had not yet been chosen, as the detailed routing process was ongoing. However, in discussing the public safety related to the preferred corridor with the SJFD

Chief, EBPC had addressed all of the recommendations made within the SJFD Risk Analysis Report.

EBPC submitted that while pipeline incidents with the potential to impact public safety were highly unlikely, it is critical to have a well-rehearsed ERP. The ERP would ensure proper coordination with the City's first responder services, including those of the fire department.

In order to mitigate any potential effects on accommodation, EBPC proposed an accommodations plan for construction workers. EBPC expected that the workforce requirements would be similar to those that were required for the construction of the SJL, and the facilities available in Saint John and along the preferred corridor would be adequate to accommodate the increased usage.

> ***Views of the Board***
>
> EBPC has appropriately identified potential emergency and medical services issues related to the Project and has committed to address the issues with local service providers. EBPC would also be required to conduct a full emergency response exercise within six months of commencement of operation of the Pipeline as set out in condition 21, which would be imposed should the Project application be approved and as discussed further in Chapter 3. Given the above, the Board finds that EBPC has adequately considered the Project's impacts on emergency and medical services.
>
> Although not determinative, the Board notes that EBPC has secured the support of the City of Saint John, which has the responsibility for emergency services and first response. Based on the support of the City of Saint John for the Project, it is reasonable to conclude that the City's concerns have been or will be addressed to its satisfaction.
>
> Given the accommodations plan for construction workers and the previous experience with the construction of the SJL, the Board finds that there are not likely to be negative impacts on accommodation.

6.2.3 Infrastructure

EBPC committed to working with the City of Saint John to ensure that the design, construction, and operation of the proposed pipeline would not impinge on existing infrastructure. Allowances would be made for future infrastructure if it could be identified in advance so the installation of that infrastructure is not hampered. EBPC indicated that ongoing discussions with the City and owners of private infrastructure are taking place as a component of the detailed routing process.

Views of Interested Parties

Several intervenors, oral statement providers, and letters of comment raised concerns regarding the change in subsurface infrastructure including, but not limited to, the examples in the following paragraphs.

The SJFD Risk Analysis Report stated that the natural gas pipeline, once in the ground, would pose a serious obstacle to any future development. The proposed pipeline would be physically in the way of underground utilities – water, sewage, drainage, telephone ducts, electrical ducts, buried cables and other structures usually found buried in the street RoW (there would also be a substantial area below and above the pipeline that would not be accessible for future utilities). The proposed pipeline would restrict the type of construction activity that could be undertaken, even simply resurfacing the ground.

One intervenor argued that there would be no adequate or feasible way to provide necessary city services and roads to service the proposed development on his investment land. Another intervenor argued that EBPC's pipeline should not take precedence over infrastructure extremely important to the survival and well-being of citizens. One intervenor argued that there were a very large number of costs associated with a critical water main break that could shut off water for three days, closing down businesses, schools, hospitals and affecting water pressure to the entire City. Other concerns included restrictions on the ability to construct new streets and roads, and the future costs that would be applied to future development in the event the City wished to place water and sewer lines into a new residential or business development around the constructed pipeline.

FORP commissioned a study by the Pembina Institute entitled "Impacts of the Proposed Brunswick Pipeline on Municipal Infrastructure Maintenance Costs in Saint John" (Pembina Infrastructure Report). The conclusions of this Report were:

> The proposed Brunswick Pipeline may generate additional costs that would be borne by the city during maintenance of underground infrastructure (water main, sanitary sewers, and storm sewers) and roads. The average additional annual cost of maintaining underground infrastructure is estimated at $7,700/yr, primarily due to prohibited mechanical excavation within three metres of the pipeline and due to the risks associated with working in the vicinity of the pipeline. The average additional annual cost of resurfacing roads is estimated at an average of $34,000/yr for 20 years, primarily due to the anticipated shortened life of the roads following pipeline construction.
>
> Two mitigation strategies that may reduce the costs to the City include installing the pipeline three metres below water mains, sanitary sewers, and storm sewers and scheduling road maintenance to coincide with the construction of the pipeline.

EBPC's Response to Concerns Raised

EBPC stated that the pipeline would be expected to have no significant impact on the City's infrastructure, and any construction-related effects would be short-lived and remediated because, among other things, the final RoW alignment and pipeline design would avoid all such infrastructure to the extent practicable; all subsurface infrastructure would be located prior to excavating and EBPC would work closely with utility companies, landowners, and municipalities, including the City of Saint John, to identify and avoid all subsurface infrastructures such that disruptions to services would not occur as a result of pipeline installation. If absolutely necessary, interruptions should be of very short duration. Furthermore, where justified, costs for any alterations to existing infrastructure would be borne by EBPC.

EBPC submitted that close coordination with local officials would be critical to ensure impact upon local utilities and public infrastructure would be minimized. EBPC stated that it continues to meet with those officials, including working with the SJFD, the Saint John EMO and other City representatives, with the objective of resolving the infrastructure concerns identified. EBPC committed to developing special design solutions for the proposed pipeline, in consultation with City officials, where critical City of Saint John or third party infrastructure would be in close proximity to the final pipeline location within the proposed corridor. These solutions could include added pipeline burial depth, increased separation distances and other pipeline or infrastructure protection measures and would be in accordance with good engineering practice, national engineering design codes and NEB regulations.

EBPC would also work with local developers for any proposed new subdivisions or developments to design the pipeline to minimize adverse environmental effects and interactions between the proposed developments and the pipeline. In situations where fair accommodation could not be reached, EBPC would compensate the landowner or developer for their demonstrated losses. EBPC indicated that the regulatory process would ensure a fair determination of market value in the event the parties could not agree to it themselves. Once the detailed route selection process was completed, EBPC would discuss measures to address any changes or restrictions to land use with affected developers, including compensation where warranted.

In its response to the Pembina Infrastructure Report, EBPC concluded that there would be some additional costs incurred by the City of Saint John due to the presence of the pipeline, but disagreed with the total costs. EBPC noted that the estimated taxes for the portion of the pipeline within City limits would be around $1.3 million per year, approximately $700,000 of which would be distributed to the City of Saint John based on EBPC's interpretation of the Province's municipal tax regulations. According to EBPC, any minor financial burden that may be imposed on the City would be more than offset by the anticipated additional municipal taxes.

EBPC also submitted, given that the additional cost impacts would be insignificant, there was no need to have the proposed pipelines buried at such extreme depths or routed to completely avoid municipal infrastructure. These mitigative strategies would add significant costs to the proposed pipeline project and far outweigh the benefits. EBPC indicated that it would discuss timing of planned road resurfacing with the City in order that the construction of the pipeline and resurfacing of the streets is appropriately coordinated, as part of the detailed routing process.

Moreover, the City of Saint John, after considerable consultation, indicated its support for the preferred route. EBPC submitted that this suggests that any potential impacts on its infrastructure had been mitigated to the City's satisfaction.

Views of the Board

The Board recognizes that issues can arise when underground infrastructure is located in close proximity to a pipeline, and for this reason the Board has developed specific requirements in the *National Energy Board Pipeline Crossing Regulations* (Crossing Regulations). Prior to construction, the Board will require, in any Certificate that it may issue, that EBPC identify all underground infrastructure utilities to be crossed by the Project, and confirm that all the agreements or crossing permits for those facilities to be crossed have been acquired or will be acquired prior to construction (condition 13 in Appendix V). Given EBPC's proposed mitigation measures, compliance with the Crossing Regulations, its commitment to work with the City of Saint John and local developers, and condition 13 described above, the Board finds that EBPC has adequately considered the Project's impacts on infrastructure.

While EBPC's evidence on additional infrastructure costs that could be borne by the City if the Project were built differed from those of the Pembina Institute, no evidence was available from the City to assist the Board in making a determination of an expected impact on costs. The Board notes, however, that EBPC has secured the support of the City of Saint John, which has the responsibility for construction and maintenance of municipal infrastructure. The Board is of the view that this permits the conclusion that the City is satisfied with EBPC's proposed measures to address the potential impacts on municipal infrastructure.

Further, regarding the two mitgative strategies proposed in the Pembina Infrastructure Report, the Board notes EBPC's willingness to work with the City and local developers, and therefore does not find it necessary to attach any additional conditions regarding the depth of burial for the pipeline or the scheduling of road maintenance to coincide with the construction of the pipeline.

6.2.4 Property Values

EBPC stated that it would be paying all landowners, including the City of Saint John, market value for any easements it requires. EBPC did not expect that any homes would need to be removed as a result of the Project. If it became apparent during the detailed route selection process that it would not be possible to avoid any particular residence, EBPC would purchase the residence at fair market value prior to construction.

EBPC would work with local developers for any proposed new subdivisions or development to design the pipeline to minimize adverse environmental effects and interactions between the proposed development and the pipeline. In situations where fair accommodation could not be reached, EBPC would compensate the landowner or developer for their demonstrated losses. The regulatory process for compensation matters, through Natural Resources Canada, could be used to make a determination of market value in the event the parties could not agree to it themselves.

EBPC filed a study entitled "Impact of Natural Gas Pipelines on the Value of Residential Real Estate" by de Stecher Appraisals Ltd. (de Stecher Study). The hypothetical pipeline whose impacts were considered in the de Stecher Study was based on the specifications of the proposed Project. The Study came to the following conclusions:

> After identifying several neighbourhoods where relevant data was found to be available, an analysis of the data revealed that there was no discernable impact on the market value of residential property due to the presence of a natural gas pipeline. As the data included both vacant lots and improved property and involved several disparate markets, the findings are considered transferable to other similar situations.
>
> In summation, after conducting a review of available literature, interviewing knowledgeable appraisers, analyzing relevant market data and investigating the availability of insurance, it is concluded that there is no evidence to suggest that the presence of a natural gas pipeline has any impact on the market value of residential property located in close proximity to a pipeline.

Views of Interested Parties

Intervenors submitted information on a number of studies regarding property valuations with respect to energy transmission projects, arguing that there was a connection between a decrease in property values and proximity to natural gas pipelines.

One intervenor argued that EBPC's study of the local marketplace (the SJL, which in his view is a distribution line to residences and small businesses) cannot separate proximal benefits (e.g., increased employment, options for heating and cooking) from proximal costs (e.g., risk of an explosion/fire, limitations to property development), and therefore believed that the de Stecher Study was largely meaningless.

Another intervenor argued that the proposed pipeline did not belong in his yard or through his holding property. In his view, his family's personal home would be destroyed, his corporation's medical practice would be closed, their corporate lands would be ruined, and any and all of their present and future investments would be extinguished if this were to occur. Saint John residents, in general, would not receive any local distribution benefits; therefore, he argued that the Project should not be considered the same as the SJL because the SJL was servicing Saint John customers, including EGNB, which was supplying gas to ordinary Saint John citizens for space and water heat. Further, the intervenor submitted that one could not extrapolate EBPC's local market study (based on smaller, existing transmission and distribution feeds) to a different situation with a much larger, transmission-only pipeline that Saint John residents may receive minimal direct benefits from but be expected to bear all the risk and very real burdens both now and in the future.

According to another intervenor, to conclude that there would be no effect on property value has little credibility and makes little common sense; very few people would want to purchase a property near or on a 1440 psi pipeline assembly. Consequently, value would have to be lost.

One oral statement provider suggested that EBPC be required, as a condition of approval, to purchase the property at fair market value of any owner within 500 feet of the pipeline who wishes to sell their property. He also requested a preliminary order from the NEB to EBPC to cover all interest costs for his project from the date of the pipeline reaching public consciousness in spring of 2006 to the date of the NEB decision in 2007.

EBPC's Response to Concerns Raised

EBPC did not anticipate that the Project would result in a measurable change in local property values. Since the preferred corridor had been selected to minimize disruptions to existing land use, the likelihood of adverse environmental effects on property value from changes to land use would be minimized. Further, during operation, adjacent lands would not be exposed to substantial public health and safety risks. EBPC indicated that the low level of risk (i.e., the quantitative risk of pipeline ruptures or leaks) was not anticipated to result in a significant economic risk that would affect property values. In addition, it argued that there were a number of existing natural gas pipelines within Saint John, thus the public is becoming more accustomed to this technology. Given all of these factors, EBPC submitted that it is not likely that property values would be adversely affected as a result of the Project, and the environmental effects of the Project on property values were considered by EBPC to be not significant.

While several residents had requested that EBPC provide independent assurance regarding the impact the presence of a natural gas transmission pipeline might be expected to have on residential property values, EBPC submitted that there would be no impact to property values of homes adjacent to pipelines, as confirmed by the de Stecher Study of Maritime specific areas. As part of the de Stecher Study, inquiries were made of insurance agents to determine if the presence of a natural gas pipeline would impair the ability to obtain home insurance. The Study concluded that, based on the information obtained from the three local insurance agents, it would appear that the presence of a natural gas pipeline would not make it more difficult or more costly to obtain insurance on a residential property in the local marketplace.

The de Stecher Study provided the most localized evidence of the lack of impact natural gas pipelines have on property values. The Study included a review of properties in two residential areas near the M&NP SJL and one near the M&NP Halifax Lateral. In Saint John, the Study reviewed properties in the Bentley Crossing area that are encumbered by an easement for the SJL. Further, the Study noted that the development of the Bentley Crossing subdivision in Saint John and the Miller Lake West subdivision in Halifax, Nova Scotia both occurred after the pipelines had been installed. The conclusions of the de Stecher Study were based, therefore, upon actual experience with high pressure gas pipelines in Maritime Canada, and in the City of Saint John itself.

Although some intervenors questioned the use of Bentley Crossing subdivision in Saint John and Miller Lake subdivision near Halifax as areas similar to those affected by the proposed Brunswick Pipeline, EBPC submitted that these subdivisions and situations were similar to the Brunswick Pipeline and were local. EBPC argued that this was consistent with the information requested by the public and had led EBPC to commission the de Stecher Study.

Views of the Board

Much of the debate on this topic in the hearing focused on whether the existence of a high pressure natural gas pipeline would have a measurable impact on property values. EBPC argued that there was no impact to the value of homes adjacent to pipelines, and supported these claims with the de Stecher Study of Maritime-specific areas. Intervenors referenced studies regarding property valuations with respect to energy transmission projects and argued that common sense indicated that people prefer property that is not adjacent to a pipeline, and therefore, there must be an impact on property value. In addition, it appeared that several intervenors disputed the relevancy of the conclusions of the de Stecher Study because of dissimilarities between the Brunswick Pipeline, the M&NP SJL and the M&NP Halifax Lateral; the size, the pressure, and the purpose of the three pipelines were different. Given these differences, their argument was that a study based on the SJL should not be used to predict the impacts on property values of the Brunswick Pipeline.

While the Board notes that there are differences between previous projects and the Brunswick Pipeline, the Board accepts that the conclusions of the de Stecher Study on property values are relevant to the Brunswick Pipeline Project because the study was based upon actual experience with high pressure gas pipelines, such as the SJL in Maritime Canada, and in the City of Saint John itself. The Board did not find evidence contained within the other studies regarding property valuations that would cause the Board to question the conclusions contained within the de Stecher Study.

Two factors discussed in this hearing that could negatively impact property values for properties near the Project are increased public awareness and pipeline accidents and malfunctions. The increased public awareness associated with the pipeline hearing has created some negative public perceptions; however, this would likely dissipate over time as the public becomes more accustomed to the presence of the pipeline and becomes more informed, for example, through EBPC's public awareness and public consultation programs.

Any accidents and malfunctions associated with the pipeline could also negatively impact property values. The Board notes that the NEB EA Report concluded that it is unlikely that the Project would result in significant adverse environmental effects from a pipeline leak or rupture. In addition to EBPC's Environmental Management Framework, there are multiple layers of protection to ensure the safe operation of a pipeline. This was discussed more fully in section 3.4.3.2 of these Reasons where the Board concluded that the provisions of OPR-99 and the audit programs of the NEB, in conjunction with EBPC's commitments and fulfillment of relevant Certificate conditions (18, 19, 21 and 22), are sufficient to ensure that the Brunswick Pipeline will be operated in a safe manner.

As a result of the Board's conclusions on these two factors, and its acceptance of the de Stecher Study conclusions, the Board finds that any negative socio-economic impacts on property values would be unlikely, or short-term and reversible.

Given this finding, the Board has decided that it is not appropriate to require EBPC to purchase the property, at fair market value, of any owner within 500 feet of the pipeline.

6.3 Routing and Land Matters

6.3.1 Corridor Selection

Many of the issues raised with respect to corridor selection and evidence on these issues were discussed in section 3.3 of the NEB's EA Report, attached as Appendix VII to these Reasons. The following section should be read in conjunction with that section of the EA.

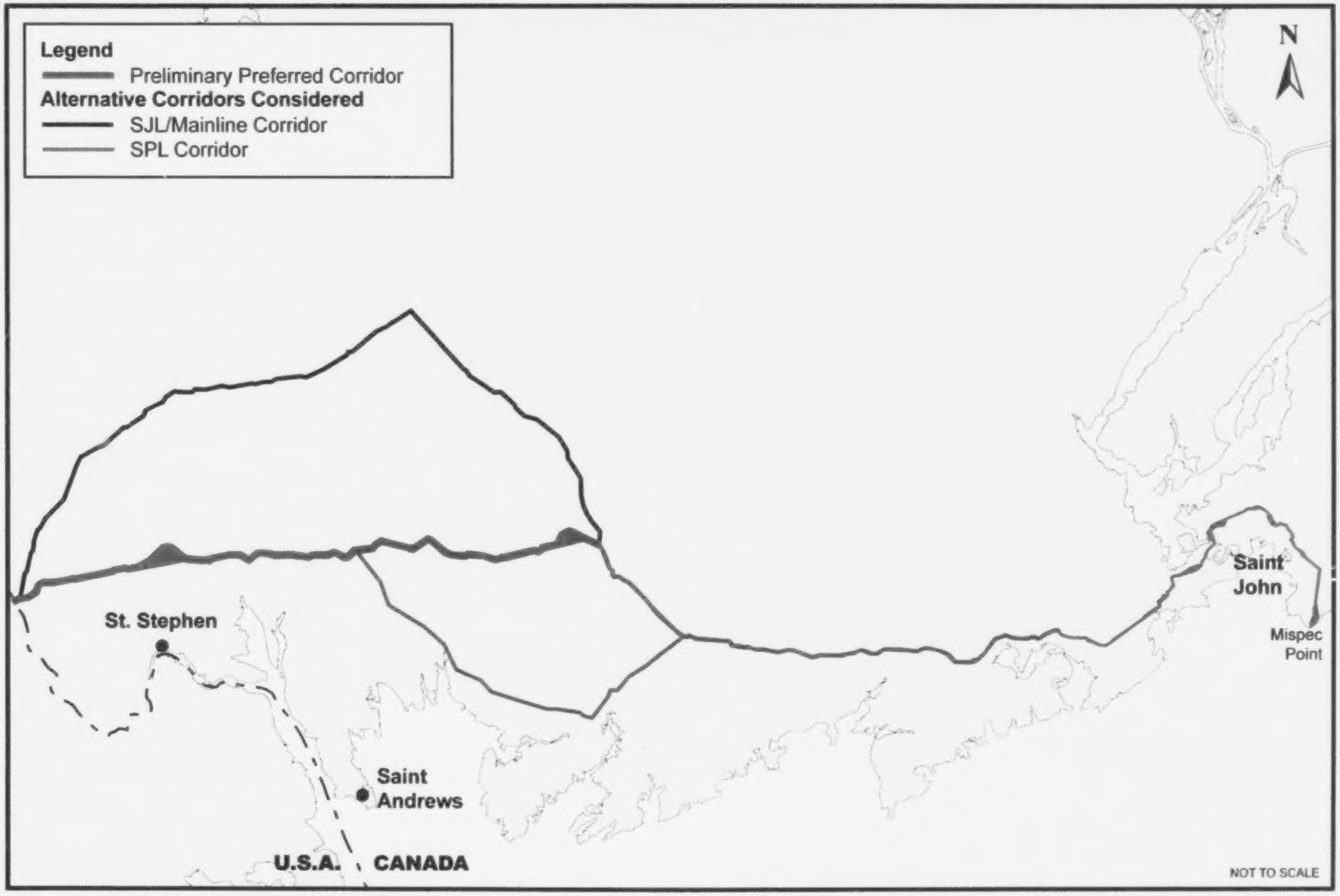
EBPC noted that several alternatives had been evaluated to connect the Canaport™ LNG Terminal at Mispec Point with M&NP US in the vicinity of the international border near St. Stephen, NB. EBPC stated that a multi-disciplinary Project team, assisted by various consultants, had been assembled to evaluate corridor alternatives and select a preferred corridor for the Project.

EBPC submitted that the preferred corridor was selected on the basis of:

- safety;
- constructability;
- minimizing Project cost;
- impacts to Project schedule; and
- environmental constraints.

The corridor evaluation and selection approach was divided into urban and rural components, separated at a point on the west side of Saint John near the community of Colpitts. Three main rural alternatives were assessed (Figure 6-1), all of which would initially parallel the existing M&NP SJL pipeline until each one would diverge to intersect and follow other existing or approved utility RoWs. EBPC stated that the Project team selected the central alternative, referred to as the International Power Line (IPL) alternative, as the preferred rural corridor largely due to its shorter length, smaller area required for new RoW, better constructability, and lower potential to interact with environmental constraints.

Figure 6-1
Proposed Pipeline Corridors Showing Rural Alternatives


Legend
Preliminary Preferred Corridor
Alternative Corridors Considered
SJL/Mainline Corridor
SPL Corridor
N
St. Stephen
Saint Andrews
Saint John
Mispec Point
U.S.A.
CANADA
NOT TO SCALE

Corridor alternatives considered for the urban portion included two marine crossing routes of Saint John Harbour and three onshore routes (Figure 6-2). EBPC submitted that a marine crossing was considered thoroughly but rejected at an early stage in the selection process due to the cumulative effects and impracticalities of higher safety, technical, cost, schedule, and environmental risks.

The three main onshore urban corridor alternatives followed a similar route from Mispec Point to the east side of the City, whereupon they would diverge: one paralleling the existing M&NP SJL pipeline through the City, another following an existing power line through Rockwood Park, and another heading northward and westward across the Kingston Peninsula (Figure 6-2).

EBPC stated that the Project team selected the Rockwood Park alternative, referred to as the Pleasant Point sub-alternative, as the preferred urban corridor largely because of its combined features of constructability and length compared to the other two alternatives.

EBPC noted that in response to initial public concerns and opposition to its choice of the preliminary preferred corridor through Rockwood Park, two possible variants were identified that would largely avoid the Park (Figure 6-3). EBPC submitted that both variants were found to be inferior to the preferred corridor through Rockwood Park because they were longer, would impact approximately 50 additional properties and a number of residences, and would either create new RoW or potentially parallel existing and future roads.

EBPC confirmed that the preferred corridor through Rockwood Park was the corridor for which it was seeking approval. EBPC submitted that it would only seek approval for either of the two variants, both of which have been assessed on a preliminary basis, should the Board not approve its preferred corridor.

EBPC noted the following features of its preferred corridor:

- compared to the Rockwood Park variants, the Rockwood Park route would follow the existing power line utility corridor, would avoid impacts to residences, would not alter existing land use, and would be the shortest option, which would result in the least impact during the construction phase;
- approximately 95 km of the 145 km corridor would follow and include existing or planned RoWs, including power lines, pipelines, highways, and roads; and
- it would follow good planning practices by paralleling utility corridors, which would allow for overlapping of RoWs, thus reducing the need to clear new RoW areas.

EBPC noted that the width of the urban portion of its preferred corridor was generally 100 m. It submitted that segments of the rural corridor that would follow the M&NP RoW were typically 200 m wide, and would increase to generally 500 m in width for the portions following the approved NB Power IPL RoW (Figure 6-1). EBPC submitted that the narrower urban corridor was designed to allow for adjusting the final location of the pipeline RoW while minimizing the impact on local surroundings. Although the urban portion of its preferred corridor was normally 100 m wide, EBPC stated that certain corridor segments would be wider to accommodate areas where EBPC considered it necessary to have more options for eventually locating the pipeline RoW.

Figure 6-2
Proposed Urban Pipeline Corridors Showing Urban Alternatives

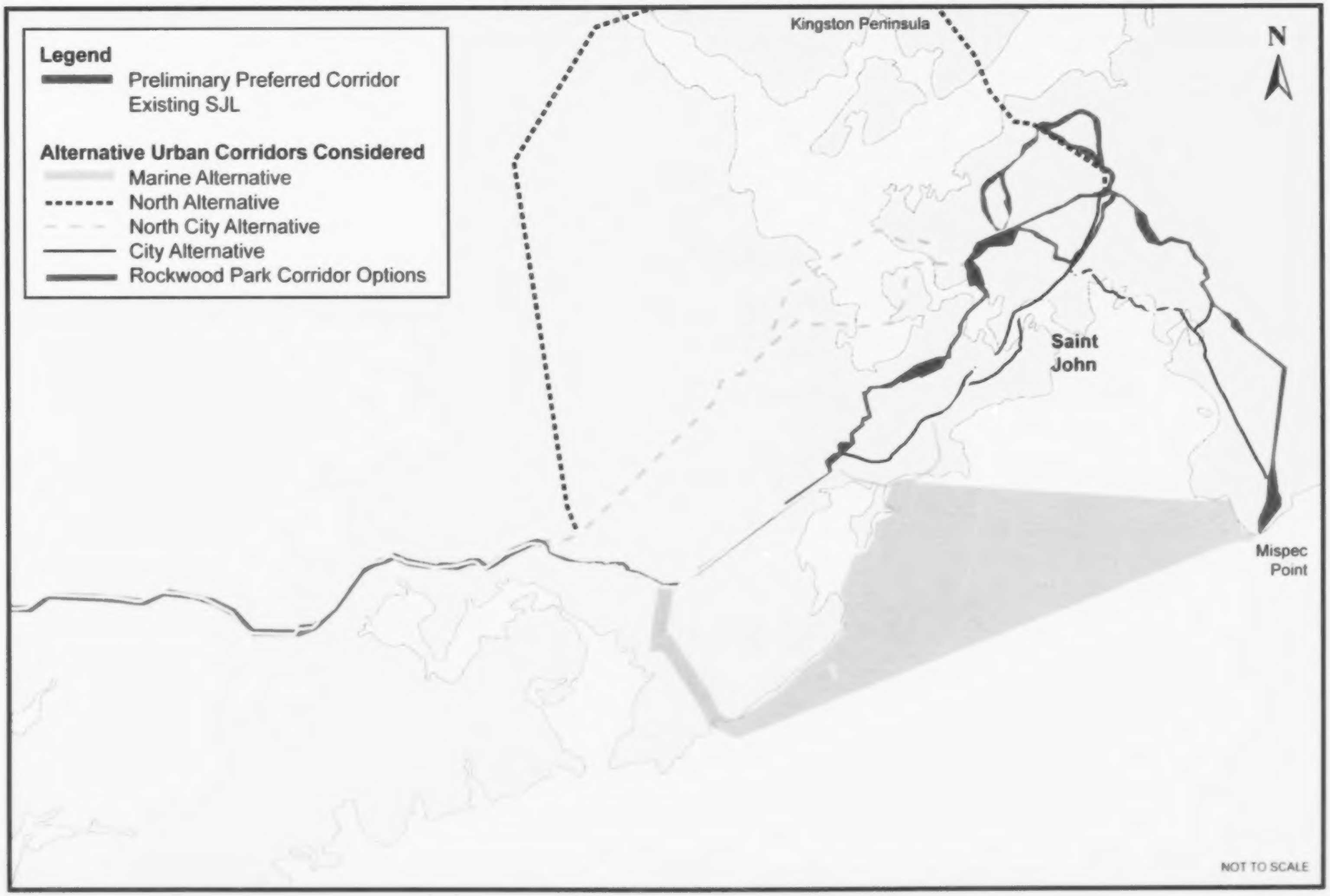
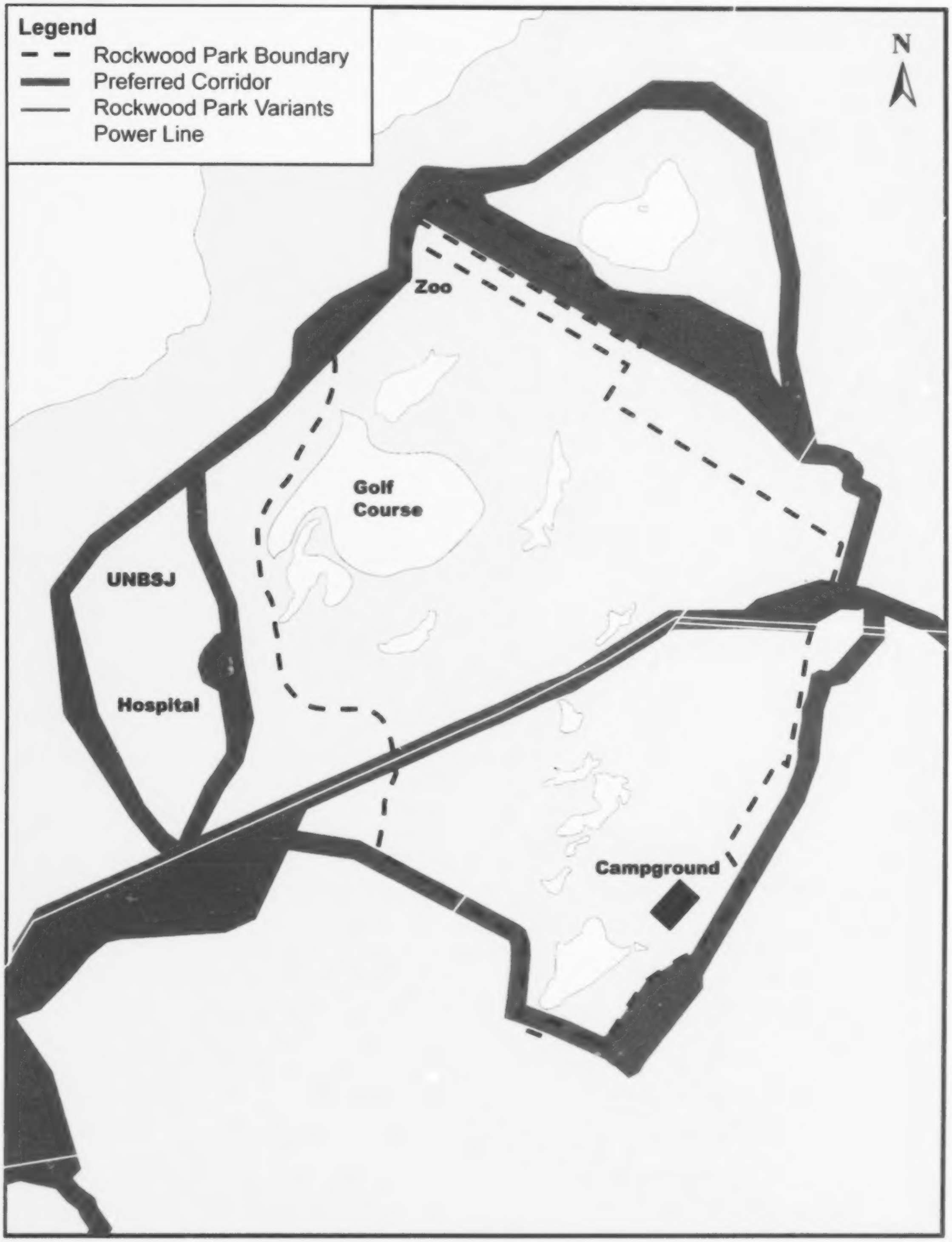

Legend
Preliminary Preferred Corridor
Existing SJL
Alternative Urban Corridors Considered
Marine Alternative
North Alternative
North City Alternative
City Alternative
Rockwood Park Corridor Options
Kingston Peninsula
N
Saint John
Mispec Point
NOT TO SCALE

Figure 6-3
Rockwood Park Variants and Preferred Corridor


Legend
Rockwood Park Boundary
Preferred Corridor
Rockwood Park Variants
Power Line
N
Zoo
Golf Course
UNBSJ
Hospital
Campground

Views of Interested Parties

Several intervenors and members of the public identified concerns with or opposition to EBPC's preferred corridor, and challenged the rationale and justification for its selection. Concerns and opposition focused almost entirely on the urban portion of the preferred corridor, particularly with regard to the portion passing through the City of Saint John and Rockwood Park. Although some people disputed specific positions or suggested alternate locations for the overland corridor, most opposed any form of terrestrial route through Saint John in favour of a marine route across Saint John Harbour, suggesting that it would be less intrusive and would pose less of a burden on Saint John citizens.

Concerns and opposition were identified through the following:

- information requests, evidence, cross-examination, and arguments from several intervenors supporting the marine alternative and challenging the preferred corridor location;
- FORP submitted a petition signed by more than 15,000 people, requesting that the Board permit only an undersea route for a natural gas pipeline in the City of Saint John, refusing any route through Rockwood Park or near any residential areas;
- EBPC's records indicated that during its initial contact efforts, many landowners located within the preferred corridor raised concerns or opposition to the corridor passing through Rockwood Park or the City;
- a vast majority of the 184 letters of comment filed with the Board indicated concerns or objections to the preferred route, many of which suggested a marine route instead; and
- the majority of those who gave oral statements raised concerns or opposition to the preferred corridor passing through Saint John and/or Rockwood Park, with some indicating preference for a marine route.

Concerns and opposition focused on the potential for adverse effects caused by the construction and long-term presence of a high-pressure natural gas pipeline passing through a highly populated urban area and Rockwood Park, such as:

- environmental impacts to Rockwood Park including habitat loss, landscape damage, wildlife disturbance, and induced all-terrain vehicle use and trespass;
- threat of further industrialization in the Saint John area;
- risks posed on community safety and security;
- challenges and restrictions to access and emergency response;
- disturbance and nuisance to communities and residents;
- risk of damage and interference to municipal infrastructure;
- disruption and loss of landowners' use, enjoyment, and opportunities for development of their properties; and
- property devaluation.

Several intervenors submitted evidence, and questioned EBPC, to support their objections to an onshore route and their contentions that a marine route would be a viable option. Some intervenors asserted that:

- dismissal of a marine crossing was overly dictated by concerns associated with permit scheduling and costs rather than a full presentation of the facts;
- the application appeared to be favouring an on-land route through the City by misrepresenting or over-estimating the difficulties, costs, and risks associated with the harbour crossing while understating the risks associated with the preferred corridor;
- there was an insufficient level of analysis on a marine corridor alternative, and that there should be a more detailed review of such an alternative before a final corridor selection decision is made; and
- corridor selection was discriminatory or influenced by such matters as Irving interests or the income profiles of affected communities.

Some participants also raised concerns about the adequacy of public and stakeholder consultation in the corridor selection process, arguing that:

- there was insufficient consultation with those people most affected by the preferred corridor;
- only a very small percentage of City residents were able to ask questions of EBPC and see its justifications for the chosen corridor before an application was filed with the Board;
- specific meetings held with the communities of Milford, Millidgeville, and Champlain Heights to discuss routing issues were initiated by local politicians and the general public, not by EBPC; and
- there was insufficient or inconsistent information, and limited time was provided by EBPC for review or comment in the corridor selection process.

EBPC's Response to Concerns Raised

EBPC submitted that it was confident with its approach for selecting its preferred corridor, and that its preferred corridor would be the most appropriate and prudent location for the Brunswick Pipeline.

EPBC noted that it had carefully considered a marine crossing and determined that it was not an option for the Brunswick Pipeline, even if its preferred corridor were to be rejected. EBPC also stated that the feasibility studies carried out on its marine alternatives constituted an appropriate level of analysis, and that these studies provided conclusive evidence that, when looking at all of the factors on balance, the preferred corridor was superior and therefore detailed studies on a marine crossing were not required. In response to intervenor evidence submitted in favour of an additional alternative marine route and questioning on this alternative, as well as EBPC's original marine alternatives, EBPC indicated that it did take another look at a marine crossing with this information in mind but determined that it would not lead to a different result in its analysis.

EBPC noted that its multi-disciplinary Project team used a balanced approach to account for all five key criteria in corridor evaluation and selection and that no particular criterion was given more importance than the others. EBPC asserted that property ownership, such as proximity to Irving-owned properties, did not influence corridor selection, and that Irving representatives did not participate in the corridor selection process. These assertions were confirmed by an Irving Oil representative during the proceedings.

EBPC indicated that a key objective for carrying out consultation activities was to solicit input regarding Project routing and design in order to minimize Project impacts, including taking input from the general public and community leaders into significant consideration in the planning of the corridor. EBPC stated that:

- its September 2005 open houses were intended to advise the public that it had completed a preliminary evaluation of corridor alternatives and to present and discuss its chosen preliminary corridor;
- concerns raised about Rockwood Park during and after these open houses led to EBPC developing the two preferred Rockwood Park variants, which were presented at a supplemental open house held in December 2005 to get further feedback; and
- this feedback had been taken into consideration in making the decision to file the preferred corridor in the application.

EBPC stated that it had reviewed all of the feedback from the open houses and still concluded that the selected corridor was the preferred corridor.

EBPC noted that all owners of properties within or crossed by the preliminary preferred corridor, as far as could be identified, were sent notification letters to advise them that the preliminary preferred corridor had been identified in their area and to notify them of the September 2005 open houses. For those not able to attend the open houses, EBPC offered to have one of its RoW agents meet with them to provide more detailed information. EBPC also undertook to have its RoW representatives directly contact every landowner identified in the corridor to explain the Project, seek permission for field survey access, and answer any questions. EBPC stated that, as of November 2006, approximately 89 percent of contacted landowners gave permission for it to access their properties to conduct further studies, and EBPC has offered to consult further with these landowners at their request.

EBPC submitted that all contacts with landowners are continuously tracked in a database to ensure that comments, concerns, and requests regarding matters such as routing, property impacts, and land-use conflicts are recorded and addressed. EBPC also described its system for recording and tracking ongoing landowner consultation efforts beyond corridor selection. As of November 2006, 717 individual files have been opened on landowners either directly or indirectly affected by the Project who have contacted EBPC or have been visited by RoW agents. EBPC submitted that "initial contact reports" for all potentially directly affected landowners were being completed by RoW agents to track site-specific issues and lands information to guide detailed route planning. EBPC stated that a pre-construction report would be completed for all directly affected landowners, and that this information would be entered into EBPC's construction line list to be used throughout construction and operation.

According to EBPC, feedback provided by landowners and other stakeholders led to several modifications to the width and position of its preliminary preferred corridor prior to filing its application. Subsequent to its application, EBPC proposed three more corridor changes, supported by the affected landowners, involving site-specific corridor widening to provide more detailed routing options to address specific issues identified by potentially affected landowners.

EBPC stated that it has garnered the support for its proposed corridor location from the duly constituted authorities within Saint John, within Rockwood Park, and from most of the owners of the RoWs that the Brunswick Pipeline proposes to share. EBPC submitted that it had consulted extensively with the City of Saint John and the Saint John Horticultural Association, the co-stewards of Rockwood Park, to address issues regarding public safety, municipal infrastructure, and lands impacts, and to ultimately demonstrate that with appropriate mitigation, the preferred corridor would be acceptable to these parties. Consequently, letters and a resolution of support for the preferred corridor were filed by the Rockwood Park co-stewards. Furthermore, an agreement was reached between EBPC and NB Power to resolve issues and concerns regarding pipeline design, construction, operation, and maintenance in proximity to NB Power infrastructure. NB Power confirmed that it did not oppose the preferred corridor, which follows approximately 35 km of its existing or planned RoWs, including the RoW through Rockwood Park.

Views of the Board

The Board notes that EBPC confirmed that its preferred corridor through Rockwood Park was the corridor for which it was requesting approval in this application, and that EBPC would only propose to seek approval of the two Rockwood Park variants if the Board did not approve its preferred corridor.

The Board finds that the preferred corridor put forward by EBPC is appropriate. The Board finds that EBPC has established a logical and reasoned approach to its selection of the five criteria used for evaluating potential pipeline corridors and the Board accepts these five criteria as being appropriate for the purpose. The Board considers the corridor selection process implemented by EBPC, including the use of a multi-disciplined Project team, the balanced use of five key criteria, and the comparative evaluation of several urban and rural routing alternatives, to be sound given the nature and setting of the Project. Although some intervenors disputed the dismissal of a marine crossing, the Board finds that the depth of analysis undertaken by EBPC and its findings with regard to a marine alternative are reasonable in this case, based on the results of its feasibility studies, as measured against EBPC's five key criteria and as tested and clarified through intervenor evidence and questioning as allowed by the Board. Further discussion of this matter is provided in the NEB EA Report (Appendix VII).

The Board recognizes the concerns raised by some parties regarding the choice of an overland route through the City of Saint John and Rockwood

Park instead of a marine crossing of Saint John Harbour. However, the Board finds that EBPC was able to demonstrate that its corridor evaluation and selection approach was reasonable, objective, and appropriate with regard to its Project purpose and the interests of those affected. By minimizing overall length and by using existing linear developments and other disturbed lands to the extent possible, including the crossing of Rockwood Park via the existing power line RoW, EBPC has selected a route that, compared to other onshore alternatives, minimizes adverse impacts to the land, landowners, and other residents in surrounding areas.

The Board considers the widths proposed for the urban and rural portions of the preferred corridor, within which the detailed route of the pipeline RoW would be determined, to be acceptable. The Board finds EBPC's proposal for a narrower urban portion of the preferred corridor, in order to minimize impact on local surroundings during detailed route siting, to be reasonable and justified given the more developed nature of these lands compared to the rural portion of the corridor. The Board is also satisfied with EBPC's proposed widening of the preferred corridor at specific locations, to provide greater detailed routing flexibility to avoid or minimize impacts to landowners.

The Board finds that EBPC's consultation with landowners and other stakeholders regarding corridor selection and design meets the basic requirements for such an undertaking. EBPC held open houses and used the feedback from these open houses to make a final determination on its preferred corridor. The Board notes that EBPC undertook to identify and notify all landowners within its preferred corridor to the extent that contact information could be obtained from a provincial government public website, and that it has applied a system for ongoing landowner engagement and issues tracking to guide and influence Project design and implementation. The Board recognizes the proposed modifications made by EBPC to the width and location of its preferred corridor in response to issues identified by potentially affected landowners and other stakeholders, and finds these adjustments to be appropriate and acceptable. Further discussion of EBPC's consultation as a whole is contained in Chapter 5 of these Reasons.

The Board notes that EBPC has obtained Project support or non-objection from a number of landowners or RoW holders within the preferred corridor. This includes the co-stewards of Rockwood Park – the City of Saint John and the Saint John Horticultural Association – as well as NB Power, which holds RoWs along approximately one-quarter of the proposed corridor. The Board finds that EBPC's preferred corridor selection process was appropriate.

6.3.2 General Land Requirements

EBPC stated that a 30 m-wide easement would typically be obtained for the proposed pipeline RoW, and that the easement would be for one natural gas pipeline, with no provision for additional pipelines or infrastructure. EBPC noted that preliminary investigation indicated that approximately 319 different properties would be crossed and therefore permanently affected by the proposed pipeline easement. EBPC submitted that additional permanent lands would be required for six valve sites, a combined meter station and launcher site, and a combined valve and launcher/receiver site. Each valve site would be approximately 20 m x 20 m, the combined valve and launcher/receiver site would be approximately 30 m x 100 m, and the combined meter station and launcher site would be approximately 50 m x 50 m.

EBPC noted that lands would be required for permanent access roads for the valve, meter station, and launcher/receiver sites. However, EBPC stated that all valve sites would be accessible from existing roads. Depending on the final location of the meter station, a permanent access road along the pipeline easement or a short driveway from an existing road may be required.

EBPC noted that temporary working room (TWR) would be required where the proposed easement area would not be sufficient for construction needs, such as at stream, road, and other crossings. Anticipated typical TWR size for watercourse crossings would be 60 m x 10 m, and 50 m x 10 m for road crossings, at all four corners of each crossing, unless constrained by existing physical features. In addition to TWR, lands for marshalling yards, storage areas, and access roads to the RoW would be required on a temporary basis during construction. EBPC stated that two to three marshalling yards would be established, in proximity to populated centres and close to transportation infrastructure and utilities.

Views of Interested Parties

Questions were raised by parties about the need for a 30 m-wide easement and the efforts taken by EBPC to minimize the Project footprint, including the possibility of a narrower easement.

Environment Canada indicated that using existing linear corridors, such as the SJL pipeline and the NB Power IPL RoWs, could reduce environmental impacts.

EBPC's Response to Concerns Raised

EBPC submitted that 30 m for an easement width had been chosen on the basis of minimizing disturbance while providing sufficient space for efficient and safe construction and operation. However, EBPC stated that it would be willing to consider variations from the standard width on a site-specific basis, if requested by the landowner and if construction and operation would not be compromised. EBPC also noted that its choice of a 30 m-wide easement was based primarily on the experience gained from M&NP's 1999 mainline construction through similarly forested terrain, where difficulties were encountered in building a 30-inch pipeline in a 25 m-wide easement.

EBPC stated that it was giving serious consideration to requests from some landowners and stakeholders to limit its permanent easement width in rural areas to 25 m, with an additional 5 m taken as TWR only during construction. EBPC submitted that 30 m was still considered necessary for the urban portion, as it would provide additional protection from encroachments, although adjustments would still be considered upon landowner request, as long as safe construction and operation were not compromised.

EBPC noted that it is investigating numerous options to minimize land requirements, most importantly the ability to overlap other existing RoWs for power transmission lines, the SJL pipeline, and the NB Power IPL currently under construction, thus reducing the need for a full 30 m-wide easement footprint in all areas. EBPC asserted that the objective of minimizing the Project footprint was a key consideration in its selection of a preferred corridor.

EBPC stated that it was striving to maximize the amount of easement overlap with NB Power's RoWs, including a commitment to overlap NB Power easements through Rockwood Park to the extent feasible. EBPC indicated that it was pursuing an approximately 11 m overlap with the existing power line RoW in Rockwood Park. According to EBPC, CSA setback requirements would generally result in approximately 10 to 12 m of maximum overlap with the existing SJL pipeline RoW. EBPC stated that it would also make efforts to utilize existing NB Power and SJL pipeline easements for its TWR requirements, where possible.

Besides the lands required for easement, TWR, and above-ground facilities such as the valve sites and the meter station, EBPC stated that it would acquire the minimum amount of additional lands to complete the Project successfully.

Views of the Board

The Board recognizes that a large number of properties and their landowners would be directly affected by the footprint required for the Brunswick Pipeline Project. However, in considering the potential impacts of the Project on landowners, the Board finds that EBPC's anticipated permanent and temporary land requirements are reasonable and justified, given the information on the record. The Board is of the view that EBPC has adequately demonstrated the need for a 30 m-wide easement and the additional lands required for above-ground facilities and temporary uses in order to construct and operate the pipeline in a safe and efficient manner. The Board acknowledges EBPC's submission that all temporary and permanent access requirements would be provided by existing roads and the proposed pipeline easement, except for new land that may be permanently required for a short driveway to connect an existing road with the proposed meter station. The Board recognizes EBPC's efforts to minimize any new permanent and temporary Project footprint by utilizing existing RoWs and other disturbed lands to the extent possible, and by considering site-specific landowner requests to reduce easement width where feasible.

The Board notes that using existing linear corridors, where appropriate, tends to reduce environmental impacts. The Board finds that EBPC has maximized the use of existing RoWs. Based on the application of the principle of minimal land disturbance combined with the rigours of the overall route selection process, the Board finds that the lands required for the Brunswick Pipeline Project are reasonable and appropriate.

6.3.3 Land Acquisition

EBPC stated that the proposed Brunswick Pipeline and ancillary facilities would generally require negotiation and acquisition of easements for the pipeline RoW, fee simple title for above-ground facilities such as valve sites and the meter station, permanent and temporary access rights over existing roads and potentially for a new driveway to access the meter station, and temporary rights for TWR, marshalling yards, and storage areas during construction. These lands rights would need to be acquired from private, Crown, corporate, and municipal landowners, with private landowners concentrated within the City of Saint John, particularly in the areas of Red Head, Milford, Westmorland Road, Spar Cove Road, Millidge Avenue, and Manawagonish Road. EBPC indicated that the City of Saint John owns 21 properties, including Rockwood Park, that may be directly affected by the pipeline route.

EBPC stated that its goal was to reach an amicable agreement for easement rights from all affected landowners. EBPC filed sample forms of notice to demonstrate compliance with s. 87 of the NEB Act. EBPC indicated that land acquisition agreements and other documents would be consistent with those previously filed by M&NP, and that sample copies of land acquisition agreements, to demonstrate compliance with s. 86 of the NEB Act, would be filed with the Board once finalized.

EBPC referred to a Letter of Commitments (LOC), originally developed for the M&NP Mainline project in 1997, which EBPC had updated and adopted for the Brunswick Pipeline Project. EBPC stated that the LOC establishes a common framework for dealing with landowners affected by its pipeline Project in a consistent manner that is fair to both parties on such matters as land acquisition negotiations, construction, and complaints. EBPC submitted that the LOC represents additional undertakings to ensure landowners' rights would be considered and protected.

EBPC stated that, since June 2005, it has been implementing a landowner contact and land rights acquisition program that includes:

- identifying all landowners within the preferred corridor for contact by RoW representatives to advise them of the Project, seek permission for field survey access, and answer any questions;
- successfully signing access permits with 89 percent of all landowners contacted as of November 2006, to allow EBPC to enter their lands to conduct further routing, environmental, archaeological, and constructability studies;
- specific consultation undertaken with, and pre-construction reports prepared for, all landowners found to be directly affected by the preliminary detailed pipeline route, to learn more about specific property features and each landowner's existing and planned property uses in order to find potential compatibilities in detailed route siting;

- capturing special requests made by these landowners so that they may be entered into a construction line list, to aid ongoing working relationships with affected landowners throughout the Project lifecycle;
- commencing service of s. 87 notices and land acquisition negotiations with landowners directly affected by the preliminary detailed route; and
- assignment of RoW agents to attend on landowners and to be their primary points of contact for all Project-related questions, issues, and concerns once construction commences.

Views of Interested Parties

A number of concerns were raised by parties about the nature and extent of the land rights to be acquired for the Brunswick Pipeline Project and the impact that these land rights would have on the ability of landowners to use their properties for such purposes as gardening, farming, and future development.

EBPC's Response to Concerns Raised

EBPC stated that for the pipeline RoW, it would generally be acquiring an easement, allowing it to construct, operate, and maintain the pipeline, whereby landowners would retain title over the easement lands, with restrictions. EBPC submitted that it would compensate the landowner for the value of the easement lands and for damages incurred, depending on existing and perhaps future uses of the land.

EBPC suggested that, although restrictions would be imposed on a landowner's property where it is crossed by an easement, it does not necessarily pose a serious obstacle to future development, and there may be specific instances where EBPC could work with the landowner to try to mitigate these impacts. EBPC also stated that generally it would only acquire outright ownership (i.e., fee simple title) of those lands required for above-ground facilities, such as the valve sites and meter station.

Views of the Board

The Board has considered EBPC's land acquisition approach for the Brunswick Pipeline Project and finds it to be appropriate. The Board recognizes EBPC's commitments to comply with the land acquisition requirements of the NEB Act, the principles of which are reflected in its LOC. The Board notes that EBPC is implementing systems for recording, tracking, and addressing landowner concerns in its land acquisition approach, and that EBPC indicates a willingness to work with landowners to address site-specific land-use interests in its pipeline easements and other land agreements. Although the Brunswick Pipeline Project would directly affect many landowners, the Board finds that with these commitments, EBPC has demonstrated that it will be respectful of landowner rights and concerns should the application be approved.

The Board recognizes that some landowners have indicated their opposition to the Brunswick Pipeline passing through their properties, and that some of this opposition is based on past experiences with pipelines on their lands. Because of the commitments made by EBPC with regard to land acquisition, and because its preferred corridor is at least 100 m-wide, thus providing some flexibility in the siting of its 30-m wide pipeline easement, the Board finds that EBPC is committed to address these concerns.

The Board notes that the NEB Act includes provisions pertaining to compensation as they relate to land acquisition for the purposes of a pipeline. Under the NEB Act, matters of compensation are considered by, and negotiation or arbitration processes are available through, the Minister of Natural Resources Canada.

Chapter 7

Tolls and Tariffs and Financial Matters

7.1 Tolls and Tariffs

As mentioned in Chapter 1, EBPC and Repsol, the only shipper on the Brunswick Pipeline, have reached a negotiated toll agreement dated 15 May 2006. This agreement obligates Repsol to pay a monthly fixed toll for the transportation of 791 292 GJ/d on the Brunswick Pipeline over a 25-year period. The 791 292 GJ/d is the Maximum Daily Transportation Quantity (MDTQ) specified in the FSA between EBPC and Repsol. The monthly fixed toll would cover all fixed charges applicable to the Brunswick Pipeline, including an equity return, typically in the 11 to 14 percent range. Repsol would have to pay the monthly fixed toll notwithstanding the actual level of throughput in any given month. Repsol's parent company, Repsol YPF, an investment grade company, has guaranteed Repsol's obligations under the negotiated toll agreement.

The monthly toll provided in the negotiated toll agreement may change if the final capital cost of the Brunswick Pipeline falls outside a determined range. At the request of NSDOE, EPBC has agreed to publicly file the final capital cost of the Project so that the final toll to be paid by Repsol is known.

Even though Repsol has committed to use the majority of the capacity, EBPC confirmed that there are three options for third parties seeking service on the Brunswick Pipeline. It would be possible for third parties to negotiate with EBPC for capacity not required by Repsol (capacity over the MDTQ); to negotiate with Repsol for an assignment of its unused capacity; or to negotiate with EBPC for an expansion of the Brunswick Pipeline. EBPC noted that should any potential shipper be unable to reach an agreement with EBPC over the applicable tolls or terms of service, it would have the right to have the Board adjudicate the matter.

In response to concerns expressed by EGNB related to the possibility of accessing the Brunswick Pipeline, EBPC indicated that it is willing to allow EGNB to design, permit, construct, own, operate and maintain any interconnecting custody transfer station(s) that connect to the Brunswick Pipeline. Furthermore, EBPC confirmed that it will not require EGNB to provide proof of gas supply when interconnecting with the Brunswick Pipeline. In order to implement this commitment, EBPC confirmed that it will, within four months of receipt of a Certificate pursuant to its application, develop in consultation with EGNB, appropriate terms and conditions related to pipeline operational matters. EBPC noted that such terms and conditions would only apply to EGNB and that different tolls and tariffs could apply to different shippers.

Views of Interested Parties

EGNB stated that it was the only participant in this proceeding who operated a local distribution company that may have the opportunity to interconnect directly with the Brunswick Pipeline. As such, it was satisfied with EBPC's evidence related to pipeline access matters. If the Board were to issue a Certificate to EBPC, EGNB asked the Board to confirm EBPC's requirement to fulfill these commitments in its decision.

Imperial stated that it considered the toll agreement between EBPC and Repsol as a negotiated settlement and took no exception to approval of the applied-for toll between EBPC and Repsol. Imperial noted that the sole reason for its support for the Brunswick Pipeline was to secure its ability to turn back capacity on the M&NP US system.

M&NP supported the timely approval of the Brunswick Pipeline Project as it would bring an additional, secure and reliable source of supply to the Maritimes that could be transported to the Maritime Canada markets by means of the M&NP system. M&NP noted that this incremental supply source is important for the continued growth and development of the natural gas markets in the Maritimes.

Repsol submitted that transportation costs on the Brunswick Pipeline from the Canaport™ LNG Terminal to the Northeast US were critical both in order to compete in the anchor market and to attract supply. Repsol succeeded in obtaining from M&NP a *conditional* market response that Repsol subsequently terminated because M&NP could not satisfy Repsol's condition pertaining to a long-term negotiated toll. Subsequently, Repsol succeeded in obtaining an *unconditional* market response to its particular service needs from EBPC. The negotiated toll agreement was one of the outcomes of this market response. Repsol submitted that this monthly fixed toll is just and reasonable since the amounts to be paid cover all costs associated with the Brunswick Pipeline and are acceptable to both the shipper and the pipeline owner. Repsol asked the Board to approve the monthly fixed toll payable by Repsol to EBPC over the entire term of the negotiated toll agreement.

NSDOE noted that even if the Brunswick Pipeline would have no impact on the tolls of the M&NP Canada line, these tolls would be rendered less competitive as a result of the lower tolls on the Brunswick Pipeline. NSDOE argued that the postage stamp toll on M&NP Canada was designed to facilitate the development of the natural gas market in the Maritimes and that, if it is not competitive, development in the Maritimes may suffer. NSDOE was also concerned that, in a world where tolls and tariffs are negotiated on a case-by-case basis, tolls charged to different parties under substantially similar circumstances may not be equal. To mitigate this issue, NSDOE submitted that all tolls and tariffs that may be developed between EBPC and Repsol, or any other shipper on the Brunswick Pipeline, should be filed with the Board and be made publicly available. Further, NSDOE submitted that EBPC should be directed by the Board to establish a tolls and tariffs working group composed of interested parties or stakeholders, including NSDOE.

Views of the Board

> Given that EBPC and Repsol, the sole shipper on the Brunswick Pipeline, have reached a negotiated toll agreement, which obligates Repsol to pay tolls that cover all fixed charges of the pipeline and an adequate equity return over a 25-year period, the Board finds that the tolls provided in the negotiated toll agreement are just and reasonable.

The Board expects EBPC to file the final capital cost of the Brunswick Pipeline. If the final capital cost is outside the range specified in the negotiated toll agreement, the Board directs EBPC to file an "adjusted" section 2.1 of the negotiated toll agreement.

In the Board's view, the Brunswick Pipeline is an open access pipeline. The Board is satisfied with the commitment of EBPC to enter into negotiations with EGNB to reach a mutually-acceptable agreement on pipeline access matters. The Board expects EBPC to honour this commitment within the timeline specified in its evidence. Furthermore, the Board expects EBPC to file the agreement pursuant to section 60 of the NEB Act. If EBPC and EGNB cannot reach an agreement, the matter could be brought to the Board for adjudication.

The Board is of the view that two or more shippers could use the Brunswick Pipeline under different circumstances; for example, they could have different transportation distances, different contract terms, or different types of services. As such, the Board recognizes that different shippers could face different tolls on the Brunswick Pipeline. However, tolls to be paid by third parties on the Brunswick Pipeline would have to be filed, or approved, by the Board before they could be charged.

The decision to establish tolls and tariffs working groups is usually left to the discretion of each pipeline and its shippers based on a desire to discuss and possibly resolve issues outside of the Board's processes. The Board finds that there was no evidence introduced that articulated a compelling need to require the establishment of such a working group for the Brunswick Pipeline at this time.

With regard to potential commercial burdens created by the Brunswick Pipeline, the Board recognizes that there is a significant difference on a per GJ basis between the tolls on the Brunswick Pipeline and the M&NP Canada system. However, the Board notes that there is no evidence on the record that shows that protecting the M&NP Canada system and its shippers from competition would serve the Maritime market in more efficient manner than in letting it operate on its own. In fact, the shippers on M&NP Canada either supported the project or did not oppose it.

In conclusion, the Board finds that the tolls to be charged under the negotiated toll agreement between EBPC and Repsol are just and reasonable and that there is no unjust discrimination in tolls, services or facilities against any person or locality. The Board approves the tolls to be charged by EBPC to Repsol.

7.2 Anadarko's Evidence (Bypass Issues)

Anadarko submitted that the Brunswick Pipeline would be a bypass of the Canadian M&NP system because it would duplicate facilities that could readily be made capable of providing a similar service to that proposed by the Brunswick Pipeline. According to Anadarko, the Canadian and US M&NP systems are indivisible and the Brunswick Pipeline would be a parasitic bypass since it would tap into the economies of scale and absorb virtually all of the existing and readily expandable capacity on the US segment of the M&NP system. Anadarko submitted that despite the fact that the Brunswick Pipeline would be both physically and operationally dependent upon the integrated M&NP system, it proposes to pay nothing for it or towards it. Contrary to EBPC's claim, Anadarko stated that the Brunswick Pipeline could not and would not be a stand-alone pipeline.

Anadarko stated that, since the Brunswick Pipeline does not pay its fair share of the costs associated with the utilization on the M&NP Mainline, Anadarko's LNG supply acquisition efforts were hampered by having to try to overcome the competing Canaport™ Project's transportation advantage gained by the Brunswick Pipeline.

Anadarko submitted that if the Brunswick Pipeline were to be approved, it would not be the market that would be deciding what, if any, toll advantage the Canaport™ Project has over the Bear Head Project; it would be the NEB. Anadarko was of the view that there is no justification for giving any toll advantage whatsoever to the Canaport™ Project over the Bear Head Project.

Mr. Peter Milne, Anadarko's expert witness, was of the view that neither the Canadian segment of the M&NP system nor the US segment could exist or operate independently of the other segment. As such, the Brunswick Pipeline proposal would be a typical bypass pipeline that is designed specifically to avoid the postage stamp toll on the Canadian segment of the M&NP system. Furthermore, Mr. Milne submitted that if it is not commercially feasible to construct and operate a stand-alone or independent pipeline from Canaport to Dracut, Massachusetts and it is only feasible to provide service to Repsol by utilizing the M&NP US system, then the cost to provide service from the point where the Repsol gas would join the M&NP US system is dependent on the cost of the integrated M&NP system. In his view, the shipper on the Brunswick Pipeline should then bear an appropriate share of the cost of the system.

Mr. Milne also submitted that the cost of gas from Canaport delivered to Nova Scotia or NB (not via an interconnection) would be considerably higher if the Brunswick Pipeline bypasses the Canadian segment of the M&NP system, undermining the development of Canadian Maritime markets. From a public interest perspective, there are no economic efficiencies created by allowing the proposed Brunswick Pipeline to bypass the Canadian segment of the M&NP system.

Anadarko requested that the Brunswick Pipeline application be denied because it is an inefficient, unfair and inequitable bypass of the M&NP system. In denying the application, Mr. Milne suggested that the NEB should also urge M&NP to conduct a new open season for capacity on its system. Anadarko further submitted that if the Board were to approve the Brunswick Pipeline and its associated toll, the Board should urge M&NP to enter into negotiations with the Bear Head Project under a tolling structure that would be based on incremental rates so that this project could compete fairly with the Canaport™ Project.

Views of EBPC and Repsol

EBPC recognized that the Brunswick Pipeline is dependent on the US segment of M&NP and that this segment is dependent on the Canadian M&NP system. However, EBPC was of the view that Anadarko's theory of dependency lacked merit and should be rejected. If this theory of dependency were to be true, no separate pipeline or separately-owned pipeline system connecting with another could be described as a stand-alone system. The Great Lakes Gas Transmission System could not be described as a pipeline that stands alone from TransCanada PipeLines Limited (TransCanada). Vector could not be described as standing alone from Alliance Pipeline Ltd. Union Gas Limited and Enbridge Gas Distribution Inc. could not be described as standing alone from TransCanada or other upstream connecting pipelines. According to EBPC, the Brunswick Pipeline is a stand-alone system. It is not integrated with the system owned and operated by M&NP in Canada.

Repsol submitted that confining the scope of the alternatives to be considered to a cross-border stand-alone pipeline was a business decision. Repsol needed a transportation agreement that would enable the Canaport™ LNG Terminal to operate as a viable supply source. EBPC further submitted that the stand-alone nature of the Brunswick Pipeline was a prerequisite to its realization. It is a market-based pipeline supported by a chain of commercial arrangements.

EBPC and Repsol were of the view that the Brunswick Pipeline would not duplicate existing facilities. That conclusion is reinforced by the fact that the Brunswick Pipeline will provide transportation from an incremental supply source. It is then not reasonable to refer to the Brunswick Pipeline as a "bypass" pipeline. EBPC submitted that the label one uses to describe the Brunswick Pipeline is of little relevance; the issue for the Board is to determine if the Brunswick Pipeline is in the overall public interest.

In EBPC and Repsol's view, Anadarko's position was without merit and the Board should reject any submissions for denial of the application made by Anadarko, which is a speculative competitor of the Canaport™ LNG Terminal.

> ***Views of the Board***
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> In providing its 17 November 2006 ruling on an objection raised to a line of questions Anadarko was pursuing with EBPC's witness, the Board provided a framework for consideration of relevant issues in this proceeding. This ruling is attached in Appendix VI. In accordance with the framework set out in the ruling, the Board is of the view that the status of the Bear Head Project, its relation with M&NP, and whether the Bear Head Project should be granted any special treatment by M&NP are beyond the scope of this proceeding. If Anadarko wishes to raise an issue with respect to the tolls on the M&NP system, it may file the appropriate application with the Board; this proceeding is not the appropriate forum to consider such issues.

In light of the Board's ruling, certain sections of Mr. Milne's evidence outlining an expansion of the SJL and estimating the costs and potential savings of such an option are, in the Board's view, outside the scope of this proceeding either under the CEA Act, as noted in the NEB EA Report attached as Appendix VII to these Reasons, or under the NEB Act. There is no evidence that any such expansion could or would be undertaken by the owner of the system, M&NP. Based on the evidence before the Board, this is not a currently planned expansion, nor even a reasonably contemplated one. The Board notes that M&NP, and a number of its shippers, such as Imperial Oil Resources, ExxonMobil Canada Ltd., and Shell Canada Limited, were parties to this proceeding and did not oppose this Project; in fact, M&NP, Imperial Oil Resources and ExxonMobil Canada Ltd. supported it. To enter into a speculative exercise comparing the Brunswick Pipeline tolls to tolls that may result on a different system if a hypothetical expansion were to occur, when there is no evidence that the owner would undertake such expansion, or that the current shippers desire or would even use the expanded facilities, is not sufficiently probative to the Board's decision on whether the Brunswick Pipeline is in the present and future public convenience and necessity. Such an exercise also does not factor into the Board's determination of whether the tolls to be charged on the Brunswick Pipeline are just and reasonable, and not unjustly discriminatory.

With respect to Anadarko's claim that the Brunswick Pipeline is a "bypass" pipeline, the Board is of the view that for the Project to qualify as a bypass, there would have to be *existing* facilities that perform the same functions as the proposed Project, which the proposed Project proposed to circumvent. As noted in the EA, the Board accepted EBPC's evidence that reversing the SJL would not be a technically feasible alternative to the Project. There are no existing facilities capable of providing the same service as the proposed Brunswick Pipeline. In the Board's view, the Brunswick Pipeline is not a bypass pipeline. Even if the Brunswick Pipeline could be considered a "bypass" pipeline, that classification in and of itself is not determinative; the Board still has to determine whether the Brunswick Pipeline is in the present and future public convenience and necessity.

The Board is satisfied, on the basis of the evidence submitted, that the Brunswick Pipeline would be a stand-alone pipeline for the following reasons. First, it is owned by a different corporate entity than the M&NP system and is therefore legally distinguishable. Second, its facilities are physically separate or distinguishable from the existing M&NP facilities. Third, it would provide a unique and separate service from any other service already provided by the M&NP system, and therefore is functionally distinguishable from M&NP.

Furthermore, the Board is not persuaded that the mere fact that it connects to the M&NP US system defeats the claim that the Brunswick Pipeline is a stand-alone pipeline; due to the integrated nature of the natural gas market infrastructure of North America, it would be possible to argue that almost every pipeline depends on another one.

The Board recognizes that the Brunswick Pipeline may give a transportation advantage to the Canaport™ LNG Terminal compared to the Bear Head project, should the Bear Head project be constructed, ship volumes on the M&NP system and not receive a special toll for such shipments. However, the Board's mandate is neither to protect parties from competition nor to protect specific private interests. The Board believes that the public interest is best served by allowing competitive forces to work, unless there is clear evidence of significant market dysfunction. In the context of this proceeding, the Board does not see any clear evidence of significant market dysfunction.

7.3 Method of Regulation

EBPC requested that the Board issue an Order designating it as a Group 2 company for the purposes of toll and tariff regulation. EBPC submitted that its request is consistent with the goal of the Brunswick Pipeline and its only shipper, Repsol, to minimize the need for regulatory litigation and gives effect to the commercial arrangements of the parties. Further, EBPC submitted that the Brunswick Pipeline is not of a size or complexity that warrants the more extensive regulation appropriate for major Group 1 transmission companies. In accordance with Group 2 requirements, EBPC stated that it would maintain separate books of account in Canada.

NSDOE suggested that if the Board were to grant the Group 2 status to EBPC, it should establish terms providing for the ongoing monitoring and, perhaps, auditing of tolling arrangements established by EBPC to ensure that they are fair and non-discriminatory. This approach would be more than a passive complaint-based process.

Views of the Board

The Board is of the view that granting Group 2 status to the Brunswick Pipeline for toll and tariff regulation is appropriate given the size of its facilities and the fact that it has only one shipper at this time. EBPC is required to maintain separate books of account in accordance with generally-accepted accounting principles and to file audited financial statements within 120 days after the end of each fiscal year.

The Board does not see the need to monitor or audit the Brunswick Pipeline in a more proactive way than what is currently done for other Group 2 companies. Within the Group 2 framework, any existing or potential third party shipper with a legitimate complaint against EBPC can bring the matter to the Board for adjudication.

The Board grants Group 2 status to the Brunswick Pipeline for the purposes of toll and tariff regulation.

7.4 Project Financing and Economic Feasibility

EBPC submitted that the total capital cost of the Brunswick Pipeline is estimated to be approximately $350 million. The Brunswick Pipeline would be financed by Emera Inc., EBPC's parent company, through a combination of debt and equity. In order to finance the Project, Emera Inc. has access to public debt and equity markets, including a $550 million credit facility provided by its banking syndicate.

EBPC and Repsol both submitted that the commercial agreements, guaranteed by their respective parent companies and discussed in section 7.1, are the foundation of the proposed Brunswick Pipeline. Those agreements are designed to ensure that the Brunswick Pipeline will be economically feasible. For the first 25 years of its operation, Repsol will be at risk for the costs associated with the Project. Repsol will pay all pre-approval and pre-construction costs and will pay the entire fixed costs of the pipeline for the first 25 years of its operation, regardless of throughput. As a result, the Brunswick Pipeline is a commercially "at risk" pipeline.

Views of the Board

The Board is of the view that the financing of the Brunswick Pipeline Project is adequate.

In assessing the economic feasibility of a project, the Board usually considers whether the tolls on the proposed pipeline are likely to be paid and whether the proposed pipeline is likely to be used at a reasonable level over its economic life.

With regard to the first test, the Board finds the assumption that the Brunswick Pipeline has its foundations in the commercial agreements between EBPC and Repsol to be acceptable. Consequently, the Board finds it reasonable to assume that the tolls will be paid by Repsol to EBPC over the first 25 years of the operation of the pipeline. As for the second test, given the significant financial commitments made by Repsol to the Brunswick Pipeline, the Board is of the view that Repsol has sufficient economic incentives to use the Pipeline at a reasonable level over its economic life. Therefore, the Board finds that the Brunswick Pipeline is economically feasible.

Chapter 8

The Board's Public Interest Determination

8.1 The Public Interest

As noted in Chapter 2 of these Reasons for Decision, the Board has described the public interest in the following terms:

> The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

When applying the "present and future public convenience and necessity" test under Part III of the NEB Act, the Board makes a determination in the overall "public interest". In its consideration of an application, the Board is required to identify and weigh all relevant evidence on the record and come to a determination whether, overall, the project is in the public interest or in the present and future public convenience and necessity. This requires that the Board balance the benefits and the burdens of the project, based upon analysis of the relevant evidence properly before the Board, to come to its final determination.

This Chapter provides the Board's assessment of the overall benefits and burdens of the Brunswick Pipeline Project in relation to its decision under s. 52, Part III of the NEB Act.

8.2 Benefits and Burdens of the Project

Tables 8-1 and 8-2 summarize the key benefits and burdens, respectively, of the proposed Project that were determined by the Board and outlined in the previous chapters of these Reasons and in the EA. Both tables indicate whether the benefits or burdens would apply locally (i.e., within the immediate vicinity of the Project, such as the City of Saint John), regionally (i.e., within the Maritimes) or nationally.

This is not intended to be a comprehensive list of all benefits and burdens mentioned during the proceeding by participants. Rather, it is a summary of the key benefits and burdens that the Board identified during its analysis of the evidence and ultimately weighed in reaching its decision. Both tables have been generally arranged from top to bottom in relative order of importance, as determined by the Board, during its deliberations and analysis of the evidence. A descriptive and more complete weighing of the benefits and burdens is found in Section 8.3.

Table 8-1
Summary of Key Benefits

Benefits	*Type of Impacts*
• Maritime Canada access to new secure natural gas supply source (up to 250,000 MMBtu/day) from a well-known global supplier	Local Regional National
• regional incremental natural gas supply source that will enable Maritime Canada to fulfill current and anticipated future natural gas needs by promoting the long-term growth of the regional energy market	Local Regional National
• open and competitive markets within Maritime Canada will be encouraged through the increased development of competitive regional markets for natural gas	Local Regional
• introduction of an incremental source of natural gas supply to the region could decrease potential short-term price volatility and facilitate long-term price stability for the region	Local Regional National
• increased utilization of current Maritime energy infrastructure through accessibility to an incremental reliable supply source. For example, M&NP shippers can mitigate demand charges by utilizing existing delivery points as receipt points for the Repsol gas supplies and then utilizing their existing Canadian capacity to exchange or backhaul the gas to where it might be actually consumed or possibly resold.	Local Regional National
• flexibility to draw supply from various fields and therefore ability to mitigate potential supply problems in any given supply basin	Regional National
• EBPC's commitment to provide training and funding to first responders	Local Regional
• Potential for increased use of natural gas over other less clean burning fuels such as coal and oil	Local Regional National
• Aboriginal "set-aside" that would target two percent of all third-party contracted services for NB Mi'kmaq and Maliseet businesses	Regional

Benefits	*Type of Impacts*
• Project is expected to create direct, indirect and induced employment and income for the City of Saint John and the region, for example: • by allowing local and regional workers and businesses to better compete, and be successful, in their bids on tenders for labour and materials; • direct incremental jobs in Saint John area [during construction total direct employment of approx. 373 person years; during operation – four full time equivalent positions on pipeline]; and • during construction - $137 million in GDP for New Brunswick and $210 million for rest of Canada. During operation- GDP impact of $2 million for province and $2 million for rest of Canada. Annual gross economic impact $4 million for province, $5 million for rest of Canada.	Local Regional National
• enabling M&NP shippers to turn back capacity on the M&NP US system, relieving those shippers of demand charge obligations	Regional
• pipeline would contribute tax revenues to various levels of government, estimated at $3.3 million (property), $2 million (federal), $1 million (provincial), and $1 million (capital tax) for a total of $7.3 million annually. (Approx. $700, 000 property taxes to City of Saint John)	Local Regional National

Table 8-2
Summary of Key Burdens

Burdens	*Type of Impacts*
• concerns about access to communities in the event of an emergency and the capacity of first responders to handle an emergency	Local
• potential for accidents or malfunctions associated with the pipeline and concerns about resulting impacts on local population	Local
• potential for and concerns about blast vibration damage to structures and the environment	Local

Burdens	***Type of Impacts***
• concerns about increased noise and vibration, and the duration of construction, especially for residents of Pokiok and Milford, associated with the HDD under Saint John River	Local
• disruption and loss of landowners' use, enjoyment, and opportunities for development of their properties	Local
• potential adverse environmental effects on biophysical (e.g., effects to vegetation, wildlife and surface water) and socio-economic (e.g., disruption of recreational pursuits) components of Rockwood Park	Local
• key potential adverse environmental effects on the biophysical environment along the pipeline RoW include effects on Species at Risk and Species of Conservation Concern, and on wetlands, as well as effects from unauthorized access to the RoW and acid rock drainage • other potential environmental effects on the biophysical environment along the pipeline RoW include effects on soil and soil productivity, vegetation, water quality and quantity, fish and fish habitat, wildlife and wildlife habitat, and air quality	Local Regional National
• potential issues may arise when underground infrastructure is located in close proximity to a pipeline	Local
• key potential adverse environmental effects on the socio-economic environment along the pipeline RoW include effects on heritage resources and on the current use of lands and resources for traditional purposes by Aboriginal persons • other potential environmental effects on the socio-economic environment along the pipeline RoW include varying degrees of disruption, nuisance, and land-use impacts to landowners, residents, and commuters due to pipeline construction, operation, maintenance, and RoW restrictions	Local Regional
• low tolls on the Brunswick Pipeline could render the postage stamp toll on the M&NP Canada system less competitive	Regional

8.3 Weighing of Benefits and Burdens

Benefits

The Board finds that the benefits associated with the Brunswick Pipeline bringing an additional and stable supply of gas into Maritime Canada are significant, real and numerous. Although some parties questioned whether access to the incremental supply source would be assured through potential direct connection, or whether the current M&NP infrastructure could be used to physically backhaul gas, the Board notes that there are a number of ways in which Maritime Canada could access the gas.

Access to the Project's natural gas supply could be achieved through the use of backhauls, swaps or direct connection to the Brunswick Pipeline. Given the number of potential methods this Project offers for accessing gas, the Board does not believe that some uncertainty or additional costs around one particular method substantially detracts from the considerable weight of the national, regional and local benefits potentially realized through access to a new incremental natural gas supply source.

For example, the Board finds that there would be a strong benefit to regional Canadian shippers, other than shippers on the Brunswick Pipeline, should this Project proceed. The Project will likely encourage increased utilization of current regional infrastructure, such as the M&NP system, through the potential accessibility to an incremental and reliable source of supply. Shippers on M&NP may mitigate their current demand charges by utilizing existing delivery points as receipt points for the Repsol gas supplies and then utilizing their existing Canadian capacity to swap or backhaul gas to where it might actually be consumed or possibly resold. There is an added national benefit to potentially utilizing unused capacity more efficiently on the M&NP system. The Board finds that the promotion of the efficient use of energy infrastructure is a strong benefit to all Canadians.

The Board finds that arguments that this gas may only be received by Irving Oil do not detract from the overall benefit of bringing an additional stable supply of gas to this region. From the evidence, it is understood that Irving Oil currently uses approximately 80 percent of the gas in Maritime Canada, and that it intends to use approximately 80,000 MMBtu/day of incremental gas from the new supply source. The Board finds that the viability of this new supply source is dependent upon the use of Brunswick Pipeline as a connection to a downstream anchor market since natural gas demand in the Maritimes is not independently substantial enough to attract investment in this supply source. Maritime Canada gas usage in 2005, from the M&NP system, amounted to 80,000 MMBtu/day. Given that Irving Oil indicated in evidence that it would continue to honour its commitments on the M&NP Canada system, the logical conclusion is that this Project will result in, at a minimum, an incremental demand for gas of 80,000 MMBtu/day in the Maritimes.

Furthermore, even though Irving Oil is uncertain whether it will ship gas on the Brunswick Pipeline in excess of the amount that it intends to use proprietarily, the evidence indicates gas will also be accessible for use by the Maritime Canada market through various means, including through the Brunswick Pipeline. The Board is of the view that it is reasonable to conclude that Repsol and Irving Oil would seek to maximize the sale of gas into the Maritime Canada market, and that a local distribution company, like EGNB, could seek to interconnect with the Brunswick Pipeline to benefit from this new system.

There is an economic incentive for Repsol and Irving Oil to facilitate sales to the Maritime Canada market in that there would likely be lower transportation costs associated with delivery into this market than costs incurred if the gas were to be exported. In addition to a direct connection to the Brunswick Pipeline, other ways to access gas using the Project include swaps and backhauls. On this evidence, the Board finds that, on a balance of probabilities, the Maritimes will have access to this new natural gas source, and the Brunswick Pipeline will be instrumental in allowing the Maritimes to achieve the benefits associated with the addition of this incremental supply source.

The Board is of the view that Brunswick Pipeline's reliance on Repsol's portfolio of gas sources creates a considerable benefit in that it provides flexibility to draw supply from various fields. This flexibility mitigates potential supply problems in any specific basin and would provide regional and local Canadian shippers and users of this gas, such as local and regional utilities and businesses, with added assurance of supply. As a result, sourcing gas in this manner will likely encourage increased natural gas use and promote the long-term growth of the natural gas market both in the Maritimes and locally. Though there is no certainty with respect to how Repsol may manage its portfolio of assets, the Board is of the view that any uncertainty of this approach is sufficiently offset by the increased flexibility that reliance on a portfolio allows. In addition, given the investment Repsol and its affiliates have made in the area, as noted in Chapter 4, the Board is of the view that it is a logical conclusion that Repsol would seek to maximize return on its investments. Accordingly, the Board finds that there is a significant benefit associated with the supply of an additional, secure source of gas to the Maritimes. The Board also finds that the Brunswick Pipeline could provide a national benefit; for example, Repsol plans to pursue options to provide future natural gas service to Quebec markets using backhauls on existing pipeline systems.

Another key national, regional and local benefit found by the Board was the potential that the introduction of an incremental source of natural gas supply to the Maritimes could decrease potential short-term volatility and facilitate long-term price stability for the Region. Principles of supply and demand would indicate that increasing supply of a product to an area where supply is predicted to be tight has the potential to alleviate price volatility and put downward pressure on prices, which in turn could result in longer term price stabilization. The regional and local benefit of open and competitive markets within the Maritimes through the increased development of competitive regional markets for natural gas was given considerable weight by the Board. Both of these benefits provide an opportunity for the markets to work more efficiently, which is a benefit to all Canadians, but should specifically benefit residents of the Maritime Canada area.

The Board finds that a moderate benefit to the local and regional community would arise from EBPC's commitment to provide training and funding to first responders. While the primary purpose of this training and funding was described in terms of the ability of first responders to address an emergency arising from a pipeline incident, the Board finds that such additional training and funding will serve the local and regional communities by improving the capacity of first responders to address a broad variety of emergency situations.

The Board accepted EBPC's evidence that increased usage of natural gas could provide a potential environmental benefit to the Maritimes by reducing the region's dependence on less clean burning fuels such as coal and oil. However, the Board assigned this benefit limited weight given that realization of this benefit is likely dependent on other projects and activities outside the scope of this Project.

The Board noted and gave some weight to the evidence that Canadian shippers in the Maritimes may also receive a benefit from being able to turn back unused capacity on the M&NP US system, if the Brunswick Pipeline Project proceeds. This action would relieve them of their significant demand charge obligations on that system.

The Board finds that the Project would provide significant short-term direct incremental employment in the Saint John area, i.e., during construction there would be a total direct employment of approximately 373 person years (340 for construction of the urban portion of the pipeline, and 580 for the rural), plus supporting staff. The Board finds, however, that there could also be a burden associated with the creation of such a large number of short-term jobs within a relatively small population base; therefore, the Board has minimized the overall benefit that it attributed to the increase in short-term employment. The Board also notes that there would be few benefits in terms of jobs during operation, with only four full-time equivalent positions resulting from the Project. Therefore, the Board assigned only minimal weight to the benefit of direct incremental employment.

The Board notes EBPC's commitment to communicate labour and material requirements to labour unions and local suppliers in advance of tenders to allow the local worker and businesses time to prepare bids and adjust labour force and training requirements. This commitment could create an opportunity for local and regional workers and businesses by allowing them to better compete, and be successful, in their bids, further increasing the potential local economic benefits. If the proportional rates of indirect local and regional participation on this Project reach those experienced during the construction of the M&NP mainline (70 percent), the Board finds that this could be a moderate local and regional indirect benefit.

One specific regional benefit identified was EBPC's Aboriginal "set-aside", i.e., it would target two percent of all third-party contracted services for NB Mi'kmaq and Maliseet businesses. This regional benefit was assigned some weight by the Board.

There are regional and national benefits arising from this Project to which the Board assigned some weight. During construction, there would be $137 million in GDP for the province and $210 million for rest of Canada. During operation, the Project would have a GDP impact of $2 million for the province and $2 million for the rest of Canada. The annual gross economic impact is $4 million for the province and $5 million for the rest of Canada.

There were also local, regional and national benefits resulting from the tax revenues the pipeline would contribute to various levels of government. The revenues are estimated at $3.3 million in property tax, $2 million in federal tax, $1 million in provincial tax, and $1 million for capital tax. The total equates to $7.3 million annually. Approximately $700,000 of the property taxes would be distributed to the City of Saint John. Some weight was assigned to these benefits, although it is recognized that the property tax benefits to the City of Saint John may not be considered substantial if they stood alone.

Burdens

Most of the burdens identified in the previous Chapters of these Reasons and the key burdens identified in Table 8-2 are local in scope. This is often the case for linear fixed facilities.

A number of burdens were identified in the NEB EA report, attached as Appendix VII to these Reasons. Many of these burdens can be mitigated, and the Board assessed and weighed the likely success of potential mitigative options in reaching its determination, under the CEA Act, that the Project is not likely to have significant adverse environmental effects. Nevertheless, some impacts or burdens remain, and they must be considered and weighed in the Board's determination under Part III of the NEB Act.

Three key concerns identified during the proceeding were the risks of potential accidents and malfunctions of a high pressure pipeline, access to communities in the event of an emergency, and the capacity of first responders to handle this type of emergency. The Board finds that EBPC has mitigated the burdens related to these three fundamental public concerns to the Board's satisfaction and is satisfied that the Brunswick Pipeline could be constructed and operated in a safe manner. However, the perception by the public that these burdens have not been adequately addressed creates its own burden of stress and anxiety. As previously noted, EBPC could have gone much further in providing additional information with respect to these issues earlier in the process, which would have allowed a wider audience to have received this information, and to perhaps have been reassured.

As a result of EBPC not fully engaging the public as it could have, should the Project be approved, the Board would impose a number of conditions to alleviate this burden. For example, the Board would require the filing of a complete list of all commitments made and conditions imposed, the preparation of a public consultation program going forward, and the carrying out of a full emergency response exercise with the strong recommendation that it take place in the Milford area. Even with these conditions and the commitments EBPC has made, the Board has assigned this burden of stress and anxiety a high weight.

The potential for blast vibration damage to structures and the environment were burdens identified by the Board. EBPC's commitment to limit the vibrations (the PPV) near vibration-sensitive structures goes some way to mitigating this burden. Similarly, while the Board determined that the adverse environmental effects relating to blasting were not likely to be significant, the potential for damage to the environment, for example, wetlands, should still be assessed as a burden. The Board notes EBPC's proposed mitigative strategies and its commitment, should damage occur to structures and the environment, to remedy or compensate for the damage. However, this does not, in and of itself, eliminate the burden, since there would likely be procedures and time required to remedy any damage. Accordingly, the Board has assigned some weight to this burden.

One of the potential adverse environmental effects on the socio-economic environment of the local residents identified is the effect from noise and vibration, particularly for those residents of

Pokiok and Milford who will be near the HDD sites. While EBPC has committed to certain mitigation measures, it is clear that this burden will likely not be entirely mitigated. In addition, certain methods of mitigation may impose their own burdens; for example, relocating people if the noise is too disruptive requires that they leave their house for a period of time and must make adjustments to their day-to-day lives. As a result, this impact, while fairly short-term in the broad picture of the life of the Project, has been assigned moderate weight given its pervasive nature through a number of months.

The Brunswick Pipeline Project poses the potential in localized instances for disruption and loss of landowners' use, enjoyment, and opportunities for development of their properties, particularly for those who own or occupy the estimated 319 different properties that could be crossed by the pipeline RoW. However, the Board notes EBPC's preferred corridor design using existing RoWs and providing for greater pipeline routing flexibility where possible, its adopted Letter of Commitments for dealing with affected landowners in a fair and consistent manner, and its programs for working with potentially affected landowners to identify and address site-specific land-use interests in its detailed route design and pipeline land agreements where possible. Given these measures, the Board finds that there would be a small residual burden experienced by some landowners and occupants concentrated along the pipeline RoW.

The Board notes that the preferred corridor will follow an existing RoW through portions of Rockwood Park, which was described in evidence as a local and regional environmentally-sensitive landbase. Evidence was provided that many residents of Saint John use Rockwood Park for a broad variety of recreational pursuits and that there is much civic pride associated with the protection of this area. The Board notes that the proposed pipeline corridor traversing through a portion of Rockwood Park has drawn heavy criticism from public intervenors. The Board finds that EBPC's creation of an endowment fund for the Park could partially mitigate the burden associated with the land disturbance within the Park. The Board further finds that following an existing RoW through the Rockwood Park will substantively mitigate the potential biophysical burden associated with that portion of the proposed pipeline. However, the Board finds that a burden to the local and regional users of the Park remains, and therefore moderate weight was given.

Some burdens identified include potential adverse environmental effects on the biophysical environment along the proposed corridor, and involve effects on Species at Risk and Species of Conservation Concern, and wetlands, as well as effects from unauthorized access to the RoW and acid rock drainage. Other potential environmental effects include effects on soil and soil productivity, vegetation, water quality and quantity, fish and fish habitat, wildlife and wildlife habitat, and air quality. Given the mitigations EBPC has committed to, and the conditions the Board would impose should the application be approved, the Board has determined that it is unlikely that any significant adverse environmental effect would remain. Accordingly, low weight was attributed to any particular residual environmental burdens.

Although parties raised a potential burden of negative impacts to property values, specifically, as a result of accidents or malfunctions associated with the pipeline, the Board is of the view that this burden has little weight, particularly considering the multiple layers of protection EBPC has to ensure the safe operation of the pipeline, and as a result, the extremely low possibility of a major accident or malfunction. Furthermore, given the Board's acceptance of the conclusions of the de Stecher Study regarding the likelihood of negative impacts to property values, and its finding that any negative impacts on property value would be short-term and reversible, the Board has assigned this potential burden little weight.

Another issue identified was with respect to constructing and operating near underground infrastructure in close proximity to a pipeline. However, the Board notes EBPC's commitment to work with the City to achieve synergies, if possible, and with local developers and utilities to minimize disturbances. In addition, there is some flexibility in determining routing and depth of burial within the corridor to avoid potential impacts. Furthermore, the Board notes that St. Clair, to whom the construction and operation of the Pipeline has been contracted, has substantial relevant experience, including direct experience in this locale. As a result, though the mitigations committed to would not eliminate this potential burden, it was given little weight.

Other potential adverse environmental effects on the socio-economic environment of local residents identified as burdens include effects on heritage resources and on the current use of lands and resources for traditional purposes by Aboriginal persons. They also include other temporary disruptions to land use from construction along the proposed RoW. Given the proposed timing of construction, the location of the proposed pipeline along many already existing RoWs, the commitments made by EBPC with respect to heritage resources and traditional land uses, and the conditions the Board would impose should this Project be approved, the Board is of the view that very few residual effects would remain, and those that would remain would be short-term in nature (i.e., during the construction period only). Therefore, these burdens have been given moderate to low weight.

With regard to potential commercial burdens created by the Brunswick Pipeline, the Board recognizes that there is a significant difference on a per GJ basis between the tolls on the Brunswick Pipeline and the M&NP Canada system. However, the Board notes that there is no evidence on the record that shows that protecting the M&NP Canada system and its shippers from competition would serve the Maritime market in a more efficient manner than in letting it operate on its own. In fact, the shippers on M&NP Canada either supported the Project or did not oppose it. Accordingly, the Board gave little weight to the assertion that the tolls on M&NP Canada would become less competitive in the presence of the Brunswick Pipeline.

8.4 Balancing of Benefits and Burdens

The weighing of benefits and burdens with respect to the application before the Board for the Brunswick Pipeline Project was a difficult task. Many of the benefits, as can be seen from the foregoing analysis and the preceding Chapters, are national or regional in scope; few are specifically local. With respect to the burdens, the reverse is true; the majority of the burdens of the Project will be shouldered by the local community. As previously mentioned, it is not unusual that the burdens are often borne by the local community; however, often there is a broader local benefit that arises from a facility, particularly if the facility in question permits the production of local or regional resources.

With respect to the Board's consideration of the benefits and burdens of this Project under Part III of the NEB Act, the Board notes that its conclusion under the CEA Act that the Project would not be likely to cause significant adverse environmental effects, does not imply that there would be no adverse environmental or socio-economic effects associated with the Project. There still may be some adverse environmental or socio-economic effects that should be considered in identifying, weighing and balancing the overall benefits and burdens of the pipeline under the NEB Act. The Board must balance the totality of benefits against the totality of burdens to come to its final determination under section 52 of the NEB Act as to whether the Project is in the present and future public interest and necessity.

In weighing the benefits and burdens for this Project, the Board found that there were significant benefits from the local, regional and national perspectives in the opportunities associated with the access to a new, stable and secure supply of gas to this part of Canada. That being said, the Board recognizes that there are burdens associated with this Project that can not be completely mitigated and that these burdens rest primarily within the local community. Through the imposition of conditions and the guidance provided to EBPC throughout this document with respect to the importance of meaningful public consultation, the Board has determined that the burdens to the local community of Saint John can be further mitigated to the point that they are significantly less than the benefits that will accrue from this Project.

As mentioned in Chapter 6, the Board is of the view that EBPC could have pursued additional opportunities to improve its role and contribution to Saint John and Maritime Canada. The Board recommends that EBPC re-evaluate whether its role and contribution within Saint John and Maritime Canada have been maximized. The Board finds that such a re-evaluation, in combination with an improved ongoing public consultation program, would better demonstrate EBPC's stated position regarding its commitment to responsible corporate conduct and its desire to build a long-term partnership with Saint John and other communities throughout New Brunswick.

Therefore, on whole, taking into account all of the evidence in this proceeding, considering all relevant factors, and given that there are clear substantial benefits regionally and nationally, through which the local community will indirectly benefit, as well as some direct local benefits, the Board finds that the benefits of this Project outweigh the burdens. Accordingly, the Board concludes that the Project is in the present and future public convenience and necessity, and in the Canadian public interest.

8.5 Acknowledgements

The Board would like to acknowledge the participation of all parties in the hearing associated with this application. The Board is committed to ensuring that all stakeholders are engaged effectively in the Board's public process. One aspect of this commitment is to have effective public participation in oral hearings before the Board.

In this proceeding, there was a high level of participation by individuals and groups who had not previously appeared in front of a quasi-judicial tribunal. The time and effort that these parties spent to meaningfully participate in the public hearing was noted, and through their participation, the Board collected evidence that was highly relevant to its deliberations.

Chapter 9

Disposition

The foregoing chapters constitute our Reasons for Decision in respect of the application heard by the Board in the GH-1-2006 proceeding.

The Board is satisfied that the proposed Brunswick Pipeline Project is, and will be, required by the present and future public convenience and necessity, provided that the terms and conditions outlined in Appendix V, including all commitments made by EBPC during the hearing process, are met. Therefore, subject to the approval of the Governor in Council, a Certificate of Public Convenience and Necessity incorporating the terms and conditions in Appendix V will be issued pursuant to Part III of the NEB Act.

In addition, the Board finds the tolls and tariff to be charged to be just and reasonable, and not unduly discriminatory. Accordingly, the Board approves the tolls for the Brunswick Pipeline pursuant to Part IV of the NEB Act. Finally, the Board finds it appropriate for EBPC to be designated a Group 2 company, and orders that it be so designated.

S. Leggett

S. Leggett
Presiding Member

K. Bateman
Member

Crowfoot

S. Crowfoot
Member

Calgary, Alberta
May 2007

Appendix I

Summary of Events

Following the filing of the project description for the Brunswick Pipeline Project by M&NP on 6 January 2006, the NEB had discussions with the CEA Agency, affected federal departments and the NB Department of Environment regarding the EA process for the Project.

On 16 March 2006, the Board sent a letter to the Minister of Environment referring the Project to a panel review and requesting that the Minister approve the substitution of the NEB process for an EA by a review panel pursuant to subsection 43(1) of the CEA Act.

On 5 April 2006, NEB staff held a public information session in Saint John to share information about the NEB's role, responsibilities and mandate, and to explain how the public could become involved in the NEB's regulatory process for the Project.

On 3 May 2006, the Minister of the Environment, the Honourable Rona Ambrose, pursuant to her authority under the CEA Act, referred the Project to a panel review and approved the Board's request for substitution.

A draft EA scoping document was released for public comment on 5 May 2006. Several comments were received during the public comment period, which closed on 7 June 2006, with additional comments received from the Applicant on 12 June 2006. The final EA scoping document was released on 23 June 2006.

The NEB received the application for the Project on 23 May 2006 from EBPC as the new owner of the Project, and on 9 June 2006, the NEB issued the Hearing Order for the GH-1-2006 proceeding, which included a List of Issues and a schedule of events leading up to the 6 November 2006 oral portion of the public hearing.

On 19 and 20 June 2006, NEB staff held public information sessions in Saint John to assist individuals in selecting a method of participation and preparing for effective and meaningful participation in the public hearing process for the Project.

A pipeline route orientation was conducted by the Board and two staff on 11 October 2006 to view, by helicopter and by vehicle, some of the locations and landmarks referenced in the evidence submitted in the proceeding in order to help the Board better understand the evidence.

The next day, 12 October 2006, the Board and staff held pre-hearing planning sessions in Saint John to assist parties in their preparation for the NEB public hearing on the Project, and to invite Intervenor feedback to assist in the planning for the oral portion of the hearing.

The oral portion of the hearing took place from 6 November to 20 November 2006 at the Hilton Saint John Trade and Convention Centre in Saint John, NB. Final argument by written submission concluded on 22 December 2006.

The NEB EA Report was released by the Board on 11 April 2007, and the government response to that EA Report was approved by the Governor in Council on 17 May 2007.

Appendix II

List of Issues

In Hearing Order GH-1-2006, the Board identified but did not limit itself to the following issues for discussion in the proceeding:

1. The need for the proposed facilities.
2. The appropriateness of the design of the proposed facilities.
3. The safety of the design and operation of the proposed facilities.
4. The economic feasibility of the proposed facilities.
5. The potential commercial impacts of the proposed project.
6. The potential environmental and socio-economic effects of the proposed facilities, including those factors outlined in subsections 16(1) and 16(2) of the *Canadian Environmental Assessment Act*.
7. The appropriateness of the general route and general land requirements of the pipeline.
8. The method of toll and tariff regulation, including the request by EBPC that it be regulated as a Group 2 Company (as described by the Board's Memorandum of Guidance dated 6 December 1995 on the Regulation of Group 2 Companies).
9. The terms and conditions to be included in any approval the Board may issue.

Appendix III

Brunswick Pipeline Estimated Capital Cost

($CDN millions)

Pipeline Materials	87.0
Measurement Materials	1.8
Subtotal Materials	88.8
Pipeline Contracts	179.6
Measurement Contracts	0.9
Subtotal Contracts	180.5
Engineering, Development & Land	49.6
Subtotal All Costs	318.9
Contingency	16.8
AFUDC	14.7
Total	**350.4**

Appendix IV

Brunswick Pipeline Pipe Specifications

	Urban (KP 0 – KP 31.152)	Rural (KP 31.152 – KP 144.249)
Class Location	3	1
Pipe Outside Diameter (mm)	762	762
Length (km)	31.152	113.097
Grade (MPa)	483	483
Category	II	II
Maximum Operating Pressure (kPa)	9 930	9 930
Minimum Wall Thickness* (mm)	15.7	9.8
Pipe Coating	Fusion bond epoxy	Fusion bond epoxy
Joint Coating	Spray or roll on epoxy	Spray or roll on epoxy

* includes a few hundred metres of 15.9 mm wall thickness pipe at railway crossings where pipe is within seven metres of railway track

Appendix V

Certificate Conditions

General Conditions

1. EBPC shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its application or as otherwise agreed to during questioning or in its related submissions.
2. EBPC shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its application or as otherwise agreed to during questioning or in its related submissions.

Prior to Construction

3. Commitments

EBPC shall file with the Board and post on its company website, at least one hundred and twenty (120) days before the planned start of construction, a table listing all commitments made by EBPC during the proceedings, conditions imposed by the NEB, and the deadlines associated with each.

4. Consultation

EBPC shall file with the Board for approval, at least seventy-five (75) days prior to the planned start of construction, a public consultation program for the construction and the operation phases of the Project.

5. Environmental Protection Plan

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a Project-specific Environmental Protection Plan (EPP). This EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in EBPC's application for the Project, subsequent filings, evidence collected during the hearing process, or as otherwise agreed to during questioning or in its related submissions. The EPP shall describe the criteria for the implementation of all procedures and measures, and shall use clear and unambiguous language that confirms EBPC's intention to implement all of its commitments. Construction shall not commence until EBPC has received approval of its EPP from the Board.

The EPP shall address, but is not limited to, the following elements:

a) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all Project phases, and activities;
b) site-specific construction plans for wetlands where they cannot be avoided;
c) site-specific plans for habitat harboring Species at Risk and of Conservation Concern where it cannot be avoided;
d) project-specific acid rock drainage mitigation measures;
e) a construction and reclamation plan for Rockwood Park with evidence demonstrating consultation with stakeholders;
f) a reclamation plan which includes a description of the condition to which EBPC intends to reclaim and maintain the right of way once the construction has been completed, and a description of measurable goals for reclamation; and
g) evidence of consultation with relevant regulatory authorities that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.

6. Environmental Follow-up Programs

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a description of follow-up programs as required by the *Canadian Environmental Assessment Act*. The programs shall verify the accuracy of the environmental assessment predictions and assess the effectiveness of mitigation for:

- fish and fish habitat as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- wetlands as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- access management as detailed in the Access Management Plan (Condition 11); and
- horizontal directional drill (HDD) noise management (Condition 15); and
- reclamation of Rockwood Park (Condition 5e).

Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board.

These descriptions of follow-up programs shall include a schedule for the submission of follow-up reports to the Board.

7. Traditional Ecological Knowledge Study Recommendations

EBPC shall file with the Board, at least sixty (60) days prior to construction, an update on the implementation of the six recommendations identified in the Traditional Ecological Knowledge Study (July 2006).

8. Construction Schedule

EBPC shall, at least thirty (30) days prior to construction, file with the Board a detailed construction schedule or schedules identifying major construction activities and shall notify the Board of any modifications to the schedule or schedules as they occur.

9. Construction Inspection Program

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a construction inspection program. The program shall include:

a) a preliminary list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, and decision-making authority;
b) a discussion of how any changes to the items outlined in (a) would be determined during the course of construction; and
c) the reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety.

10. Archaeological Studies and Monitoring Plan

EBPC shall consult with the Archaeological Services Unit of New Brunswick on further studies and a monitoring plan for areas with high potential for heritage resources, once the locations for detailed right of way, facility sites and temporary work space have been determined. EBPC shall file with the Board for approval, at least thirty (30) days prior to construction:

a) for approval, a report that documents how archaeological and heritage resources within the detailed route have been identified, recorded and mitigated;
b) copies of any correspondence from, or a summary of any discussions with the Archaeological Services Unit of New Brunswick regarding the acceptability of EBPC's report and proposed mitigation measures; and
c) for approval, a copy of any proposed monitoring plan.

11. Access Management Plan

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a Project-specific Access Management Plan that includes:

- a) EBPC's goals and measurable objectives regarding the Access Management Plan;
- b) the methods and procedures to be used to achieve the mitigation goals;
- c) the criteria to determine if the mitigation goals have been met;
- d) the frequency of monitoring activities along the right of way;
- e) a description of the adaptive measures that will take place in the event that access management measures are ineffective; and
- f) evidence of consultation with relevant regulatory authorities and landowners that either confirms satisfaction or summarizes any unresolved issues with the proposed mitigation.

Construction shall not commence until EBPC has received approval of its Access Management Plan from the Board.

12. Construction Manuals

EBPC shall file with the Board the following programs and manuals within the time specified.

- a) Construction safety manual fourteen (14) days prior to construction;
- b) Field joining program fourteen (14) days prior to joining; and,
- c) Field pressure testing program fourteen (14) days prior to pressure test.

13. Infrastructure Facilities

EBPC shall file with the Board, at least seven (7) days prior to construction, the identity of all underground infrastructure utilities to be crossed by the Project, and confirmation that all the agreements or crossing permits for those facilities to be crossed have been acquired or will be acquired prior to construction.

During Construction

14. Construction Progress Reports

EBPC shall file with the Board, on a monthly basis until construction is completed, in a form satisfactory to the Board, construction progress reports. The reports shall include information on the activities carried out during the reporting period, any environmental and safety issues and non-compliances, and the measures undertaken for the resolution of each issue and non-compliance.

15. HDD Noise Management Plan

EBPC shall file for approval, at least ninety (90) days prior to the start of the HDD activity proposed for the Saint John River Crossing, a detailed noise management plan containing information on day-time and night-time HDD operations at the drill exit and entrance sites, including but not limited to the following:

a) ambient sound levels at noise sensitive areas close to the HDD exit and entrance sites to establish a baseline for assessing potential noise impacts;
b) predicted noise level at the most affected residences caused by the HDD without mitigation;
c) proposed HDD noise mitigation measures, including but not limited to the following:
    i. all technologically and economically feasible mitigative measures as presented in Section 5.1.7 of the Environmental and Socio-economic Assessment (Jacques Whitford, 2006) and in the Resource Systems Engineering assessment;
    ii. the use of full enclosures on diesel powered units;
    iii. the use of quiet machinery (where feasible);
    iv. the undertaking of HDD activities during periods where residential windows would be expected to be closed (i.e., during winter months);
d) predicted noise level at the most affected residences with implementation of the mitigation measures;
e) noise contour map(s) showing the potentially affected residences at various noise levels;
f) a noise monitoring program including locations, methodology and schedule;
g) confirmation that residents potentially affected by HDD noise will receive contact information for EBPC in the event they have concerns about the HDD noise;
h) a contingency plan with proposed mitigative measures for addressing noise complaints, which may include the temporary relocation of specific residents; and
i) confirmation that EBPC will provide notice to nearby residents in the event that a planned blowdown is required and that planned blowdowns will be completed during day-time hours whenever possible.

16. Saint John River Crossing

EBPC shall construct the crossing(s) of the Saint John River using the HDD method or, if this is not feasible, shall apply to the Board for approval of an alternative crossing technique and include an environmental assessment of the proposed alternative with its application.

17. Archaeological or Heritage Resource Discovery

EBPC shall notify the Board, at the time of discovery, of any archaeological or heritage resources and, as soon as reasonable thereafter, file with the Board for approval a report on the occurrence and proposed treatment of the archaeological/heritage resources, any changes to the archaeological/heritage monitoring plan, and the results of any consultation, including a discussion on any unresolved issues. If no discoveries are made, please indicate that when complying with condition 20.

Prior to Operation

18. Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, an Emergency Procedures Manual (EPM) for the Project and shall notify the Board of any modifications to the plan as they occur. In preparing its EPM, EBPC shall refer to the Board letter dated 24 April 2002 entitled "Security and Emergency Preparedness Programs" addressed to all oil and gas companies under the jurisdiction of the National Energy Board.

19. Consultation on Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, evidence of consultation with stakeholders identified in the EPM, including a summary of any unresolved issues identified in consultations, and evidence that the EPM addresses, to the extent possible, any issues raised during consultation.

Post-construction and During Operations

20. Condition Compliance by a Company Officer

Within thirty (30) days of the date that the approved Project is placed in service, EBPC shall file with the Board a confirmation, by an officer of the company, that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition shall include a statement confirming that the signatory to the filing is an officer of the company.

21. Emergency Response Exercise

a) Within six (6) months after commencement of operation of the Project, EBPC shall conduct an emergency response exercise with the objectives of testing:

- emergency response procedures;
- training of company personnel;

- communications systems;
- response equipment;
- safety procedures; and
- effectiveness of its liaison and continuing education programs.

b) EBPC shall notify the Board, at least thirty (30) days prior to the date of the emergency response exercise, of the following:

- the date and location(s) of the exercise;
- the participants in the exercise; and
- the scenario for the exercise.

c) EBPC shall file with the Board, within sixty (60) days after the emergency response exercise outlined in (a), a report on the exercise including:

- the results of the exercise;
- areas for improvement; and
- steps to be taken to correct deficiencies.

22. Emergency Response Exercise Program

Within six (6) months after commencement of operation of the Project, EBPC shall file with the Board a description of the company's emergency response exercise program, including:

- the frequency and type of exercises (full-scale, table-top, drill) it plans to conduct; and
- how the results of any emergency response exercises will be integrated into the company's training and exercise programs.

23. Post-construction Environmental Reports

Within six (6) months following commencement of operation of the Project, and on or before the 31st of January following each of the second (2nd) and fourth (4th) complete growing seasons following commencement of the operation of the Project, EBPC shall file with the Board a post-construction environmental report that:

a) identifies on a map or diagram any environmental issues which arose during construction;
b) provides a discussion of the effectiveness of the mitigation applied during construction;
c) identifies the current status of the issues identified, and whether those issues are resolved or unresolved; and
d) provides proposed measures and the schedule EBPC shall implement to address any unresolved concerns.

24. Environmental Follow-up Program Reports

EBPC shall file with the Board, based on the schedule referred to in Condition 6, the report(s) outlining the results of the follow-up programs.

25. Certificate Expiration

Unless the Board otherwise directs prior to 31 December 2008, this Certificate shall expire on 31 December 2008 unless construction in respect of the Project has commenced by that date.

Appendix VI

Significant Rulings

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Ruling Number 3 - EBPC Notice of Motion, dated 31 July 2006, for confidentiality under Section 16.1 of the *National Energy Board Act* (NEB Act)

Background

As part of EBPC's application, it requested an order from the Board approving the toll to be charged by EBPC under Part IV of the NEB Act. EBPC also indicated that it has reached a confidential toll agreement with its only shipper, Repsol Energy Canada Ltd. (Repsol). Under this agreement, Repsol would pay all fixed charges applicable to the Brunswick Pipeline over the first 25 years of its operation, including an investment return. EBPC indicated that it would file this toll agreement with the Board.

By motion dated 31 July 2006, EBPC applied under section 16.1 of the NEB Act to file, in confidence, the toll agreement. A copy of the toll agreement was subsequently submitted on 10 August 2006, as was a copy of a precedent agreement and redacted versions of the toll agreement and the precedent agreement. EBPC seeks protection under section 16.1 for the redacted portions of the toll agreement and the precedent agreement (the Agreements).

By letter dated 4 August 2006, the Board sought comments from the parties to this proceeding with respect to EBPC's motion. Numerous comments were received. EBPC filed its reply on 22 August 2006.

Submissions of Parties

EBPC indicated that the Agreements contain commercially sensitive information, the disclosure of which could reasonably be expected to prejudice Repsol's competitive position, as LNG transportation costs are a significant component of an LNG shipper's business strategy. Transportation costs are a factor in the competition between LNG projects for supply. In addition, there are many LNG projects under development which propose to serve, in part or in whole, the same market areas. EBPC also indicated that it has filed the Brunswick Pipeline System Firm Service Agreement, which contains the terms and conditions of service on the Brunswick Pipeline, and the redacted versions of the Agreements, so there is no need to publicly disclose the financial, economic and commercially sensitive information contained in the Agreements. The redacted Agreements provide parties with sufficient information to understand the nature and mechanics of Repsol's contractual commitments to the Brunswick Project.

EBPC further submitted that the redacted portions of the Agreements have been consistently treated as confidential by it and Repsol. EBPC stated that these parties' interest in confidentiality outweighs the public interest in disclosure of such information.

Repsol supported EBPC's motion, adopted EBPC's submissions and indicated that the disclosure of the information would be prejudicial to the commercial interests of Repsol.

A number of parties opposed the motion. The arguments in opposition include, but are not limited to:

1. The Agreements should be public because this application is for a certificate of public convenience and necessity and therefore all matters should be public or transparent, and that the public interest outweighs the interest of the companies.

2. Section 62 of the NEB Act states that tolls must be just and reasonable and charged equally to all persons at the same rate, and since justice must not just be done but be seen to be done, the public must see the Agreements for the purpose of determining their validity.

3. The information is required to assess the economic feasibility of the Project.

4. The redacted portions describe the constituent elements of its toll as well as the method by which the toll might be adjusted once construction costs are known. EBPC has requested that the Board approve the negotiated toll. The negotiated toll is an essential matter in the proceeding, and section 16.1 could not have been intended to allow the subject matter of a proceeding to be kept secret from the parties who are interested in a project before the Board.

5. Part IV of the NEB Act requires the filing and/or approval of tolls. The scheme of the Act contemplates a published tariff with a schedule of tolls, and that this transparency ensures that others seeking service feel that they are receiving fair treatment.

6. EBPC is entering a pipeline marketplace in which open access is the policy, and for which published tariffs and tolls form the cornerstone. Secret toll and related terms are not consistent with open access.

7. With respect to EBPC's argument regarding competitive LNG transportation costs, it was argued that offshore gas should not be given an advantage over onshore gas insofar as public disclosure of pipeline transportation rates is concerned. These costs are a factor for all gas suppliers. In any event, after re-gasification, this is just natural gas, not LNG, competing with other natural gas in the market. EBPC is seeking a competitive advantage for Repsol over those suppliers of natural gas whose pipeline transportation costs are public. This is not consistent with the prevailing scheme of regulation or with market transparency.

8. There was no compelling evidence that the disclosure of the information could reasonably be expected to result in a material loss or gain to any party or to prejudice any party's competitive position. EBPC has not provided any evidence to discharge its onus, but has given only bare assertions of commercial sensitivity and prejudice, which should be given little weight.

EBPC's reply submitted, among other things, that the intervenors have failed to provide any reasoned basis for requiring disclosure of the commercially sensitive information EBPC and Repsol seek to keep confidential. EBPC stated that specific toll numbers are not required to determine pipeline economic feasibility, because it is on the public record that the pipeline's costs will be paid by Repsol (guaranteed by its parent company) and the capacity will be used at reasonable levels over its economic life, as indicated by the 25 year firm service commitment by Repsol, and the substantial upstream and downstream investments by Repsol.

EBPC further argued that Repsol requested confidentiality and that no other shippers have requested service, and therefore there is no commercial prejudice to any other shipper to maintain this confidentiality. EBPC indicated that it nevertheless would disclose the actual toll information to *bona fide* potential shippers requesting service.

Section 16.1 of the National Energy Board Act

Section 16.1 of the NEB Act states:

> In any proceedings under this Act, the Board may take any measures and make any order that it considers necessary to ensure the confidentiality of any information likely to be disclosed in the proceedings if the Board is satisfied that
>
> a) disclosure of the information could reasonably be expected to result in a material loss or gain to a person directly affected by the proceedings, or could reasonably be expected to prejudice the person's competitive position; or
>
> b) the information is financial, commercial, scientific or technical information that is confidential information supplied to the Board and
>
> (i) the information has been consistently treated as confidential information by a person directly affected by the proceedings, and
>
> (ii) the Board considers that the person's interest in confidentiality outweighs the public interest in disclosure of the proceedings.

This section provides an exception to the fundamental principle that the Board's proceedings are to be open, accessible and transparent. As an exception, the onus is not upon the parties opposing confidentiality to show why the information should be public; rather those seeking a confidentiality order have the onus to show why this extraordinary order should be granted to keep information in a public proceeding confidential.

In its application, EBPC has requested an order approving the toll to be charged by EBPC. Accordingly, the decision the Board has to make requires evidence relating to the toll to be charged. By default this evidence should be public unless EBPC can persuade the Board that that information falls within the narrow and limited exceptions set out by section 16.1.

Subsection 16.1(a)

The only evidence EBPC has put forward to justify its request for a confidentiality order is that it is commercially sensitive information, the disclosure of which could reasonably be expected to prejudice Repsol's competitive position, as LNG transportation costs are a significant component of an LNG shipper's business strategy. Transportation costs are a factor in the competition between LNG projects for supply. In addition, EBPC noted that there are many LNG projects under development which propose to serve, in part or in whole, the same market areas. Though Repsol adopted EBPC's submissions, it did not provide any evidence to supplement those submissions.

The Board is of the view that the link between LNG transportation costs and tolls to be paid on the Brunswick Pipeline remains tenuous. At the entry point of the Brunswick pipeline, the product would be natural gas, not LNG, and the tolls to be paid by Repsol are tolls for the transportation of natural gas, not LNG. The tolls are collected by EBPC, who does not have LNG transportation costs. Filing the tolls on the public record would not disclose Repsol's LNG transportation costs and thus not compromise its competitiveness on the supply side.

The Board notes that transportation costs are a factor in the strategy and the competitive environment of all shippers. In addition, shippers often are competing in the same markets. For example, a shipper on M&NP or on TCPL is subject to public tolls for the transportation of their product to markets. These markets include those identified by Repsol as regions to which it intends to ship its product.

The Board is of the view that EBPC has not provided sufficient evidence to persuade the Board that disclosure of the redacted portions of the Agreements could reasonably be expected to result in a material loss or gain to Repsol, or could reasonably be expected to prejudice Repsol's competitive position.

Subsection 16.1(b)

EBPC also stated that this information has been consistently treated as confidential by the parties and that the interest in confidentiality outweighs the public interest in disclosure. Both of these factors address the requirements of subsection 16.1(b). However, this is only one aspect of the test set out in subsection 16.1(b). The Board must also consider whether the person's interest in confidentiality outweighs the public interest in disclosure of the proceedings.

EBPC has addressed the public interest aspect of s. 16.1(b) by stating that other parties do not need this information, as there is sufficient information on the record to demonstrate economic feasibility, and fair access. However, whether other parties will be prejudiced if the information is *not* disclosed is not the test EBPC has to meet.

Further, the public interest to be weighed is not just the public interest of these particular intervenors to make their arguments using the evidence already filed. The Board has defined "public interest" much broader than the specific interests of the parties involved in a particular hearing. For example, on the Board's website, the Canadian public interest is defined as follows: "The public interest is inclusive of all Canadians and refers to a balance of economic, environmental, and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision."

The public interest also involves the interest in open and accessible proceedings. In its application, EPBC has requested that the Board make an order approving the tolls to be charged. There is a general public interest in ensuring that the basis of any Board decision is founded on evidence that is in the public domain, that is, the evidence upon which the Board relies to come to a decision is open and accessible; such public interest is reflected in the principles of natural justice and procedural fairness.

The Board is of the view that EBPC has not provided sufficient evidence to persuade the Board that Repsol's interest in confidentiality of the redacted portions of the Agreements outweighs the public interest in disclosure of the proceedings.

Ruling

After considering all of the comments received, and for the reasons stated above, the Board denies EBPC's motion to file the redacted portions of the Agreements confidentially. The original Agreements filed with the Board will be returned to counsel for EBPC by courier under cover of a separate letter.

The Board notes that EBPC is requesting an order of the Board approving its tolls. In order to allow the GH-1-2006 proceeding to continue as currently scheduled, the Board encourages EBPC to file the information relating to the tolls as soon as possible.

Ruling Number 6 - Request on behalf of Anadarko, dated 25 August 2006

On 10 August 2006, the Board issued Ruling 1 regarding the scope of the GH-1-2006 proceeding and setting out its expectations that Bearhead LNG Corporation, Anadarko LNG Marketing, Corp., and Anadarko LNG Marketing, LLC. (collectively, "Anadarko") would combine any comments it had regarding EBPC's responses to Anadarko's IRs with any relief Anadarko may be seeking with respect to IRs directed at Maritimes & Northeast Pipeline Limited Partnership (M&NP), so that all matters arising out of the same IRs may be considered concurrently.

On 25 August 2006, the National Energy Board received Anadarko's renewed request to compel M&NP to file responses to Anadarko's IRs and specifically IRs 1.3(f), 1.7(a), (b) & (c) and 1.11(a), (b) & (c). On 30 August 2006, the Board invited EBPC and M&NP to provide comments by 6 September 2006 and invited Anadarko to reply by 8 September 2006.

Anadarko argued that the evidence filed on the record up to 25 August 2006 demonstrates that Repsol and M&NP had contemplated a precedent agreement in which Repsol would have used the M&NP system for its gas. M&NP could have taken the same position with Repsol that it did with Anadarko to pay a postage stamp toll on the M&NP system. However, M&NP chose instead to facilitate a "stand-alone" pipeline and thus a "stand-alone" toll, unrelated to the M&NP system. Furthermore, Anadarko argued that its evidence, filed 25 August 2006 shows that, had M&NP negotiated a toll with Repsol on the M&NP system, there would have been benefits to M&NP shippers such as lower tolls and the opportunity to turn back unused capacity.

M&NP has unique knowledge of the circumstances which led it to allow bypass of its own system, the alternatives it considered and the basis upon which other shippers requesting expansion services will be treated. In Anadarko's view, these issues bear directly on the matters before the Board in this application.

In its 6 September 2006 comments, M&NP reasserted its intention to only monitor the proceeding and reiterated that it did not intend to file evidence. M&NP argued that the Brunswick Pipeline is not a "bypass" project because it is not a duplication of existing M&NP facilities, nor does it displace current loads on the M&NP system. M&NP argued that the "alternatives" of using the M&NP system were rejected early on without the necessity of detailed analysis by EBPC because they did not meet the technical requirements, let alone Repsol's requirement for a stand-alone pipeline. Furthermore, according to M&NP, Anadarko and others have been and will continue to be treated fairly in their requests for service.

M&NP argued that Anadarko's IR 1.3(f) is irrelevant on the basis that the precedent agreement between M&NP and Repsol has terminated. Furthermore, IRs 1.7 and 1.11 are an attempt by Anadarko to convert EBPC's application under section 52 of the *National Energy Board Act* (NEB Act) into one that would compel M&NP to prepare its own application and to potentially provide service to a market (Repsol) that does not want it. M&NP submits that the Board has previously stated that there is no jurisdiction to direct the filing of such an application nor has Anadarko cited authority to permit it to force its competition (Repsol) to use a different pipeline system than that which Repsol has chosen.

EBPC argued that Anadarko's request goes beyond the testing of the adequacy of EBPC's analysis of alternatives by forcing a different company to sponsor a new alternative. This effort is without procedural precedent and pointless given that no authority has been cited in support. The Board cannot force a pipeline company to file an application, and mandated carriage or facilities expansion under section 71 of the NEB Act is not available to support Anadarko's request because Repsol is not offering any gas to M&NP for transport on M&NP's system. Finally, EBPC is prejudiced by the introduction of new parties and hypothetical projects.

On 8 September 2006, Anadarko replied that M&NP's submissions, including that it only plans to monitor the proceeding, demonstrate that it does not intend to accede to Anadarko's request and as such, the Board must compel M&NP to answer the IRs. M&NP is more than a bystander and is in possession of evidence relevant to the Board's decision under the NEB Act.

Anadarko submitted it wishes to ensure that the Board has all relevant information and that expansion is offered on a fair and non-discriminatory basis. It does not wish to require M&NP to build new facilities.

The Board's test for determining whether to compel a party to answer IRs is whether the information is relevant, significant and is a reasonable request in the context of the particular proceeding. The IRs in dispute seek to determine the outcome of commercial arrangements that are neither in place nor are expected to be in place in the foreseeable future, based on the evidence submitted in this proceeding.

Nor is the Board persuaded that any probative value to be gained by requiring M&NP to answer Anadarko's IRs, and specifically IRs 1.7 and 1.11, would outweigh the burden on M&NP to prepare that information. Accordingly, Anadarko's 25 September request to have M&NP answer Anadarko's IRs, and specifically IRs 1.3 (f), 1.7(a), (b) & (c) and 1.11(a), (b) & (c) is denied.

Ruling Number 7 - Ms. T. Debly's Notice of Motion to require EBPC to respond to Information Requests (IRs)

On 7 September 2006, Ms. Debly filed a Notice of Motion to require EBPC to respond to certain IRs submitted by her and by the Estate of A.J. Debly. In addition, she requested an extension to the deadline for filing her evidence until 15 days after EBPC responded to these IRs. The Board sought comments from EBPC and Ms. Debly before making its determination, and received comments from EBPC dated 13 September 2006 and from Ms. Debly dated 18 September 2006.

Criteria for Responding to Information Requests

Before coming to the views of the Board with respect to the motion, it may be helpful to set the information request process into the context of the Board's overall role as a decision-maker.

While the Board is not formally bound by the rules of evidence, it may not take into account facts that have no logical connection to the decision it has to make, nor fail to take into account relevant and material facts. Relevant facts are provided in a number of ways, including through the application, through evidence filed in support of the application, and through responses to information requests posed by the Board or by parties to a proceeding, or through evidence filed by other parties to the proceeding.

Sections 32 to 34 of the *National Energy Board Rules of Practice and Procedure, 1995* (the Rules) deal specifically with the information request process. These rules provide that in response to an information request, a party must provide one of the following: a full and adequate response to the information request; a statement setting out the objection to responding and the grounds therefore; or a statement that the information is not available, setting out the reasons for the unavailability and the alternative available information that may be of assistance.

With respect to the general purpose of information requests and the criteria used to decide when an applicant will be directed to respond to a request, the Board has previously stated:

> The Board process allows for the use of written information requests for a number of reasons. Applications before the Board require the consideration of substantial information, much of it of a detailed and technical nature. Often this information is not conducive to an examination by the oral cross-examination process. Parties are therefore encouraged to obtain and examine such information through the established information request process. This process can be used to obtain the evidence necessary to test and explore the Applicant's case and, in the case of Intervenors, to assist them in preparing their cases.
>
> … When the parties cannot agree on the appropriateness of the Information Request or the adequacy of a Response, the Board is asked to provide direction. When considering such a motion, the Board looks at the relevance of the information sought, its significance and the reasonableness of the request. It seeks to balance these factors to ensure that the purposes of the Information Request process are satisfied, while ensuring that an Intervenor does not engage in a "fishing expedition" that could unfairly burden the Applicant.[1]

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[1] Westcoast Energy Inc. (GH-5-94), Transcript volume 3 (8 February 1995), at 340 -342.

The criteria of relevance, significance and reasonableness have been applied in a number of proceedings before the Board.[2]

In determining whether the information sought to be elicited through the information request process in this proceeding should be provided, the Board is of the view that a similar analysis should be undertaken; looking at whether the information requested is relevant, whether it is significant (or probative) and whether the request is reasonable, and balancing these factors to ensure that the purpose of the information request process has been satisfied.

Cumulative Environmental Effects Assessment

In addition to the criteria set out above, as the IRs are raised in the context of the Board's letter on the Environmental Assessment Scoping Document, dated 23 June 2006, some discussion of how cumulative effects assessments are carried out in the Board's process is useful. The approach to cumulative effects assessment reflected in Guide A, Section A.2.6 of the National Energy Board's Filing Manual (the Manual) is to undertake the following sequential steps:

1. Identify the potential effects for which residual effects are predicted for the project being assessed (residual effects are those which would still exist after any mitigation is applied);

2. For each biophysical element where residual effects are identified, determine the spatial and temporal boundaries that will be used to assess the potential cumulative effects;

3. Identify other projects and activities that have occurred or are likely to occur within the residual effects boundaries and identify whether those projects and activities will produce effects on the biophysical element within the identified boundaries;

4. Consider whether the effects in (3) act in combination with the project's residual effects and if so, include those projects or activities in the cumulative effects assessment; and then

5. Analyze the cumulative effects of the proposed project in combination with other projects and activities for each biophysical element; this includes considering the residual effects of the proposed project in combination with the effects of other projects and activities and considering whether the proposed project is incrementally responsible for adversely affecting a biophysical element beyond an acceptable point (*i.e.*, threshold).

The Manual also states that "The level of effort and scale of the cumulative environmental effects assessment should be appropriate to the nature of the project under assessment; its potential residual effects; and the environmental and socio-economic setting."

The Board also wishes to emphasize that one of the purposes of the *Canadian Environmental Assessment Act* (CEA Act), as set out in paragraph 4(1)(b.1), is "to ensure that responsible authorities carry out their responsibilities in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process." As noted in the Board's

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[2] For example, the Board's Letter Decision dated 5 September 2002 on Westcoast Energy Inc.'s Southern Mainline Expansion Project (GH-1-2002) and the Board's Letter Decision dated 14 February 2003 on Sumas Energy 2, Inc.'s application for an international power line (EH-1-2000).

23 June 2006 letter, the Canaport^{TM} LNG facility, including its environmental effects on air quality, has already undergone an environmental assessment by federal authorities under the CEA Act and by provincial authorities. That assessment is publicly available on the Canadian Environmental Assessment Agency's online registry.

Therefore, in carrying out its cumulative environmental effects assessment of the Brunswick Pipeline, the Board must ensure it is not being duplicative of environmental assessment processes already undertaken; and that it is the potential residual effects of the Brunswick Pipeline that are being assessed. The Board's consideration of other projects is only in the context of whether those other projects have effects that have the potential to act *in combination* with the Brunswick Pipeline's residual effects. Further, the nature of the Brunswick Pipeline project and its potential residual effects also inform the level of effort and scale of the cumulative effects assessment. It is within this context that the Board can consider terminal or tanker traffic *to the extent that they are relevant* as cumulative environmental effects that are likely to result for the Brunswick Pipeline in combination with other projects or activities that have been or will be carried out.

Specific Information Requests

IR EOD 1.3

The Board is of the view that IR EOD 1.3 from the Estate of A.J. Debly has been sufficiently responded to by EBPC in its responses. Accordingly, the Board will not direct EBPC to further respond to this IR.

IRs TD 1S.12, TD 1S.13, TD 1S.17 and TD 1S.18

Based on the context noted in the previous section, and balancing the three criteria of relevance, significance and reasonableness set out above, the Board is of the view that these IRs seek information that does not appear to be sufficiently significant or probative to the Board's assessment of the cumulative effects of the Brunswick Pipeline to require EBPC to undertake a further response to these IRs.

However, the Board notes that Ms. Debly and the Estate of A.J. Debly may submit, as part of their own evidence, any evidence they feel is relevant to the cumulative environmental effects assessment and the Brunswick Pipeline's impact on air quality.

IRs TD 1S.15, TD 1S.16, and TD1S.20 to 1S.22

With respect to IRs 1S.15, 1S.16, and 1S.20 to 1S.22 of Ms. Debly's IRs, the Board is of the view that the information requested is not sufficiently significant or probative to the Board's consideration of EBPC's application to require EBPC to provide a further response to these IRs.

In the Board's view, the information sought appears to relate primarily to the broad issue of global greenhouse gas emissions, and their environmental effects. For example, the environmental effects of upstream LNG production in another country do not have the ability to act cumulatively with the environmental effects of the Brunswick Pipeline except on a global level. A focused and accurate assessment of these environmental effects is not feasible. As noted in the Manual, some spatial and temporal boundaries to the cumulative effects assessment have to be utilized.

In addition, in the Board's view, calculating the emissions of upstream LNG production or determining the end use(s) of gas transported on the Brunswick Pipeline regardless of the site of the LNG production or the end use of the gas would not be helpful to the determination it must make.

Considering these environmental effects would be a difficult exercise of little, if any, probative value. It is too broad, too speculative and of too little utility to be useful for the section 52 determination to be made by this Board. As a result, the Board will not direct EBPC to respond further to IRs 1S.15, 1S.16, and 1S.20 to 1S.22.

Conclusion

For the foregoing reasons, the Board hereby denies Ms. Debly's motion requesting EBPC to further respond to her and the Estate of A.J. Debly's IRs, and for a 15-day extension to Ms. Debly's deadline for filing written evidence.

Ruling Number 10 - Objections to Late Filings, Filing of Late Letters of Comment and Requests to File Late Evidence

Background

The Board has received an objection to the Letter of Comment from Ms. L. McColgan, filed with the Board on 10 October 2006. A number of objections were also raised to the request to make an oral statement by Atlantic Institute for Market Studies (AIMS), whose request was filed 6 October 2006. The Board has also received Letters of Comment from Wallace MacMurray, on 13 October 2006, D.R. McColgan and David Hayward, filed with the Board on 17 October 2006. No objections have been received to the filing of these late Letters of Comment. All of these filings were made past the deadlines set out in the Hearing Order GH-1-2006 Timetable of Events, as amended.

The Board has also received two requests for permission to file late evidence from Ms. J. Dingwell, dated 11 October 2006, and from Mr. D. Robichaud, dated 13 October 2006. Furthermore, on 19 October 2006, Mr. Robichaud filed evidence in the form of a report by Accufacts. In addition, Ms. D. Fuller provided photographs to Board staff on 12 October 2006. The photographs were not accompanied by a request to the Board for permission to file them late.

This ruling deals with all of these matters.

Views of the Board

Criteria that may be considered

The Board is of the view that it would be helpful for all parties to be reminded of the criteria the Board may consider in determining whether to grant requests to file late evidence, late Letters of Comment or late requests to participate.

On any motion for the filing of late evidence, the Board considers whether the applicant for the relief has persuaded the Board that:

(i) the evidence is relevant;
(ii) that there is a justification for filing late or that the party has acted with due diligence to try to meet the deadline; and
(iii) that there will be little prejudice resulting to any party if the evidence is accepted into the record (taking into account any mitigative measures).
(iv) In addition, the Board may consider other factors, such as whether the probative value of the evidence outweighs any prejudice to other parties as a result of the lateness of receiving it; the efficiency and fairness of the Board's regulatory process and the mandate of the Board to make a fully informed decision on an application before it.

In other words, the Board considers whether the applicant for the late participation has provided a justification for what interest the person has in the application before the Board, why it is applying late, and whether any other party would be prejudiced by its participation.

When considering late Letters of Comment or late requests to participate, similar criteria are taken into account. In the case of late participation, the Board may also consider other factors, including whether the participant is likely to materially assist in the understanding of the issues raised by the application, and whether those who already are participating are able to sufficiently advance concerns relating to the public interest. The Board will also balance accommodation of views of those with an interest in the application and the need for an efficient regulatory process.

Turning now to the individual objections, late Letters of Comment and requests to file late evidence, and considering the criteria set out above, the Board finds as follows.

Ms. McColgan's Late Letter of Comment

Letters of Comment often contain both unsworn evidence and aspects of final argument. With respect to Ms. McColgan's late Letter of Comment, the Board notes that while the content of the letter may be relevant to the issues before the Board in this hearing, Ms. McColgan has not provided a justification for filing the Letter of Comment past the deadline (12 September 2006) nor provided any explanation as to why the letter could not have been provided within the timeframe set out in the Hearing Order, In addition no explanation has been given as to why the parties to the hearing will not be prejudiced by the late filing. The Board also notes that a letter of objection to this late request has been filed in these proceedings

For these reasons, the Board has decided not to admit Ms. McColgan's Letter of Comment onto the record in this proceeding.

Mssrs. MacMurray, McColgan and Hayward's Late Letters of Comment

As permitted by the *National Energy Board Act*,[3] the Board has decided, on its own motion, to deal with the question of whether or not to admit late Letters of Comment filed by

Mr. MacMurray, Mr. McColgan and Mr. Hayward. These Letters of Comment have been sent to the Board well past the deadline for filing Letters of Comment, as set out in the Hearing Order. As with Ms. McColgan's letter, none of these submissions provide a justification for filing them past the Board's deadline for filing such letters. Nor do they provide an explanation as to why parties to the hearing will not be prejudiced by the late filings.

For these reasons, the Board has decided not to admit the late Letters of Comment by Mr. MacMurray, Mr. McColgan and Mr. Hayward onto the record in this proceeding.

AIMS' Request to Make an Oral Statement

On 6 October 2006, AIMS submitted its request to make an oral statement. The request does not indicate the position AIMS will take at the oral hearing nor was it accompanied by a Letter of Comment. The request does not indicate why AIMS could not have filed its request by the deadline set out in the Timetable of Events, as amended. A number of parties objected to this late request of the basis that it was not submitted by the required deadline.

As noted in the Hearing Order, persons who make oral statements may not file anything in writing at the time of making their oral statements. Oral statement makers do not receive the application, are not entitled to ask information requests or cross-examine parties to the proceeding, or provide final argument. Oral statement makers are sworn in, make their oral statement, and then are available to be questioned on the statement by the Applicant and the Board and any other party with leave of the Board. As a general rule, only parties adverse in interest may seek leave to question oral statement makers.

The Board notes that the content of the oral evidence and argument to be provided by any oral statement maker is not known by any other party to this proceeding or other oral statement makers prior to the oral portion of the hearing, unless that person has accompanied their request with a Letter of Comment. While the content of the information is not known ahead of an oral statement being made, any prejudice suffered by a party as a result of the content of an oral statement can be rectified by questioning the oral statement maker by the party alleging prejudice.

In this instance, AIMS has not submitted its request within the timelines set out in the Hearing Order nor justified why a late filing should be accepted. Furthermore, AIMS has provided no explanation as to why parties would not be prejudiced by the late filing. While the Board notes that parties adverse in interest could be permitted to question AIMS on its oral statement, in this instance, the Board is not persuaded that, given the late date, AIMS should be permitted to make an oral statement at the hearing.

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[3] R.S., 1985, c.N-7.

For these reasons, the Board has decided that AIMS shall not be permitted to present an oral statement at the oral hearing.

Ms. Dingwell's Request to File Late Responses to Information Requests

Ms. Dingwell has requested permission to file her responses to the information requests of

Ms. Debly after the deadline set out in the Board's Ruling Number 9. She has indicated in her request that while she has gathered the information, she is awaiting verification by the Cherry Brook Zoo's director prior to submitting it, so as to ensure its accuracy. The Board has previously indicated that this information may be relevant to the issues before the Board and the resolution of those issues. The late information sought by the information request is of a factual nature; that is, it concerns facts related to the zoo's background. In the Board's view this type of information is not likely to create significant prejudice to other parties adverse in interest, particularly if the information is submitted prior to the commencement of the oral hearing. As an intervenor who has filed written evidence, Ms. Dingwell may be subject to cross-examination on this evidence by parties who are adverse in interest to her.

The Board is of the view that Ms. Dingwell's request should be granted. Ms. Dingwell is required to file this evidence with the Board and serve a copy on all parties prior to the commencement of the oral hearing.

Ms. Fuller's Photographs

During the pre-hearing planning conference held in November in New Brunswick, Ms. Fuller passed some photographs to a member of the Board's staff. Despite being advised of the procedure for filing late evidence, the photographs were not accompanied by a letter seeking permission to file the photographs late, or an explanation as to why these photographs could not have been filed in a timely manner. No explanation as to the relevance of these photographs to the issues before the Board was provided.

While in New Brunswick, the Board visited a number of locations suggested by parties to better their understanding of the evidence submitted. The majority of the locations in these photographs were visited by the Board. The Board is of the view that the probative value of these photographs does not outweigh the prejudice of introducing late intervenor evidence at this time in the proceeding. Accordingly, the photographs will not form part of the record in this proceeding and will be returned to Ms. Fuller.

Mr. Robichaud's Request to File Late Evidence

Mr. Robichaud has indicated in his 13 October 2006 letter that he was unable to find a specialist to complete a report for him until early in October. No report was attached to that letter, nor was a description of the subject matter or content, the name of the author or any other details related to the report. However, on 19 October 2006, Mr. Robichaud submitted, to the Board, a report by Accufacts entitled "*Commentary on the Risk Analysis For the Proposed Emera Brunswick Pipeline Through Saint John, NB*".

The Board has before it Mr. Robichaud's explanation of why he was not able to file the report earlier. It also has before it the report itself. However, before ruling on the admission of the report as late intervenor evidence, the Board has decided that it would like to hear comments from the Applicant, Emera Brunswick Pipeline Company (EBPC), regarding the admission of this report onto the record as late intervenor evidence.

Accordingly, EBPC is directed to file comments, if any, with the Board and serve a copy on Mr. Robichaud by no later that **5:00 p.m. Calgary time, on Tuesday 24 October 2006**.

Mr. Robichaud is directed to file a response, if any, with the Board and serve a copy on EBPC and its counsel by no later that **5:00 p.m. Calgary time, on Thursday 26 October 2006**.

Ruling on request of Friends of Rockwood Park to file Pembina Institute Report on Municipal Infrastructure (8 November 2006) [Transcript Volume 3, lines 2434-2445]

Yesterday, the Friends of Rockwood Park requested leave of this Board to file a report on Municipal Infrastructure prepared by the Pembina Institute on behalf of Friends of Rockwood Park.

The report was filed with the Board on the 1st of November and they [Emera] objected to the late filing on the basis that it was filed with no previous advice to parties, that to admit the report at this late date would cause prejudice to Emera's ability to respond to the report and that the City of Saint John has indicated that it will not be active in this proceeding. And thus, the matter is irrelevant to the Board's consideration of Emera's Application.

The Board rules, as follows, regarding the admission of the report.

The Board is charged with determining whether a project is required by the present and future public convenience and necessity. It makes its decision in the Canadian public interest. To do so, the Board is required to assess the benefits and the burdens of the proposed project by identifying and weighing them and determining whether, on balance, the benefits outweigh the burdens or vice versa.

In the Board's view, the potential impacts of this proposed project, whether positive or negative on municipal infrastructure, fall within the possible benefits and burdens to be assessed.

The Board also notes that the creation of the report was contingent on receipted information from a third party, which information, as Mr. Ruffman indicates, and as supported under the references to the report on the last page of the report, was not received until just prior to the submission of the report.

For these reasons, the Board is prepared, in this instance, to admit the late filing of the Pembina Report prepared for the Friends of Rockwood Park. In so doing, the Board also notes the following.

While support or opposition to a proposed project may inform the assessment of the benefits or burdens, it does not constitute in and of itself, a burden or benefit. Nor does support or opposition remove the requirement for the Board to consider any particular benefit or burden; so, the Board view it as a relevant consideration.

Given the late date of the introduction of this evidence, the Board advises that if appropriate witnesses are not present to be cross-examined on this evidence, should the request be made or such cross-examination, this may reduce the weight the Board may assign to this evidence.

As always, any party is entitled to present final argument about the weight to be afforded any given piece of evidence.

In addition, the Board is prepared to allow Emera significant latitude to address this evidence as part of its reply evidence towards the end of the oral Hearing, should Emera determine some reply is necessary.

Furthermore, should the Friends of Rockwood Park pose questions regarding this evidence to Emera's first Panel, the Board would entertain request by Emera for additional time to respond to this evidence, should such a request be made.

Board Ruling on Dr. Thomas's Request to Revisit the Scope of the Project (9 November 2006) [Transcript Volume 4, lines 5409-5427]

Dr. Thomas seeks to revisit the scope of the Brunswick Pipeline project to include the Canaport LNG Terminal in concert with the proposed Brunswick Pipeline to form one project as a whole to be considered under CEAA.

Emera's counsel, Mr. Smith objects on the basis that the Board in its capacity as a responsible authority under the Canadian Environmental Assessment Act has already determined with other responsible authorities the scope of the Brunswick Pipeline and the cumulative effects that can be considered.

On June 23rd, 2006, Exhibit A-3, the Board determined the scope of the Brunswick Pipeline project. On that date the Board also set out that cumulative effects including the Canaport LNG Terminal and tanker traffic could still be considered to the extent that those effects are relevant as cumulative effects that are likely the result from the project in combination with other projects or activities that have been or will be carried out.

In a subsequent ruling addressing an outstanding information request dated the 21st of September, 2006 Exhibit A-27 the Board set out the process for cumulative environmental effects assessment. The Board takes this opportunity to reiterate how this process works. The approach to accumulative effects assessment reflected in Guide A, Section A.2.6 of the National Energy Board's filing manual is to undertake the following sequential steps.

One, identify the potential effects for which residual effects are predicted for the project being assessed. Residual effects are those which would still exist after any mitigation is applied.

Two, for each biophysical element where residual effects are identified, determine the spatial and temporal boundaries that will be used to assess the potential cumulative effects.

Three, identify other projects and activities that have occurred or are likely to occur within the residual effects boundaries. And identify whether those projects and activities will produce effects on the biophysical element within the identified boundaries.

Four, consider whether the effects in three as just identified act in combination with the project's residual effects and if so include those projects or activities in the cumulative effects assessments.

And then five, analyze the cumulative effects of the proposed project in combination with other projects and activities for each biophysical element.

This includes considering the residual effects of the proposed project in combination with the effects of other projects and activities and considering whether the proposed project is incrementally responsible for adversely affecting a biophysical element beyond an acceptable point, for example threshold.

The manual also states that the level of effort and scale of the cumulative environmental effects assessment should be appropriate to the nature of the project under assessment, its potential residual effects and the environmental in socioeconomic setting.

The Board also wishes to emphasize that one of the purposes of the Canadian Environmental Assessment Act as set out in paragraph 4(1)(b.1) is to ensure that responsible authorities carry out their responsibilities in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process.

As noted in the Board's June 23rd, 2006 letter the Canaport LNG Terminal including the LNG tanker traffic has already undergone an environmental assessment by Federal authorities under the CEAA Act and by provincial authorities. That assessment is publicly available on CEAA's online registry. Therefore in carrying out its cumulative environmental effects assessment of the Brunswick Pipeline the Board must ensure that it is not being duplicative of environmental assessment processes already undertaken.

And that it is the potential residual effects of the Brunswick Pipeline being assessed. The Board's consideration of other projects is only in the context of whether those other projects have effects that have the potential to act in combination with the Brunswick Pipeline's residual effects.

Further the nature of the Brunswick Pipeline project and its potential residual effects also inform the level of effort and scale of the cumulative effects assessment.

It is within this context that the Board can consider LNG Terminal or LNG tanker traffic to the extent that they act in combination with any residual effects of the Brunswick Pipeline.

The Board is of the view that Dr. Thomas' line of question does not fall within this context. Furthermore, Dr. Thomas' concern with respect to the EIS completed for the LNG Terminal cannot be addressed in this proceeding. The Board was not an RA for that project.

In addition the Board reiterates its comments on the scoping document that assessment of a project under the CEAA Act is to occur at the proposal stage. The environmental assessment for that facility has been completed. This is not the appropriate forum for Dr. Thomas to challenge the adequacy of the LNG Terminal EIS.

As a result the Board upholds Mr. Smith's objection to Dr. Thomas' questioning and we will hear from Mr. Court again beginning tomorrow at 9:00 a.m.

Board Ruling on Questioning about Alternative Means (16 November 2006) [Transcript Volume 10, lines 14866-14878]

Yesterday, Mr. Sauerteig asked the Board to consider and allow him to continue cross-examining Emera's Panel No. 1 about his counter-proposal to the marine route that Emera examined in the course of making its decision to apply for the preferred route in its application.

The grounds Mr. Sauerteig relies on to bring this motion are that this marine crossing was an important part of his written intervention and that he has not been afforded sufficient opportunity to test the evidence adduced by Emera regarding the marine route alternatives.

Mr. Sauerteig also argued that no objections to this line of investigating Emera's application to the National Energy Board were raised before November 13, 2006.

Mr. Sauerteig further argued that according to Item 1.8.6 of Emera's application to the NEB, this marine crossing was considered but rejected for reasons which Mr. Sauerteig intended to show in the course of his cross-examination were either wrong or overstated.

Mr. Sauerteig states that this makes this aspect of Emera's application to the NEB suspect and that he was, until his questioning was halted, in the process of disproving most, if not all, of Emera's reasons listed in his application for rejecting this marine crossing.

As the Board has set out in previous applications for review during this hearing, Rule No. 44 of the NEB Rules of Practice and Procedure, requires that an application for review of a Board decision identifies sufficient grounds to raise doubt as to the correctness of that decision or order, including an error of law or jurisdiction, changed circumstances or new facts which have arisen, or facts that were not placed in evidence in the original decision, and were then not discoverable by due diligence.

The Board has not persuaded that grounds have been identified to raise doubt as to the correctness of the Board's request to have Mr. Sauerteig move on to another line of questioning.

As a result, Mr. Sauerteig's application for review is denied.

While the Board could end the matter here and -- will take this opportunity to explain that it is incumbent upon a project proponent to demonstrate under the Canadian Environmental Assessment Act that the proponent has considered alternative means of carrying out its proposed project that are technically and economically feasible.

The Board has throughout these proceedings permitted cross-examination within the scope set out under CEA. In this instance, Emera has filed evidence that it has considered the marine route as an alternative means to the preferred corridor for which it now applies.

It is the appropriateness of the preferred corridor that Emera asks the Board to adjudicate, not the alternative means such as the marine route.

In deciding whether to grant or deny Emera's application, the Board must be satisfied with Emera's evaluation of alternative means, as set out in the Canadian Environmental Assessment Act. Should the Board be satisfied with Emera's evaluation of alternative means under that act, the Board is then only able to judge the appropriateness of the preferred corridor, as applied for by Emera.

The Board points out that in the argument phase of this hearing, parties are free to argue about the adequacy of the alternative means Emera has considered under the Canadian Environmental Assessment Act, including the technical and economic feasibility of those alternative means, and that parties can also argue the adequacy of the preferred route and the general land requirements as set out in the list of issues.

Board Ruling on Questioning about Alternatives to the Project (17 November 2006)[Transcript Volume 11, lines 17126-17136]

The Board has heard a line of questioning from Anadarko and an objection to the proposed line of questioning by Emera and Repsol.

In responding to these objections, the Board is of the view it would also be helpful for parties to set out a framework for consideration of relevant issues in this proceeding.

The Board is here to hear evidence concerning the benefits and burdens of the applied-for Brunswick Pipeline Project, as currently framed. As a result, exploration of these benefits and burdens of this project by parties to this proceeding is permitted.

Areas such as the impact this project may have on current pipelines, other current or reasonably contemplated projects, current tolls or supply and demand market issues are, therefore, open to be explored.

Need for the pipeline can be fully explored, including the issue of whether this project, as currently framed, could be considered a bypass to existing or reasonably contemplated pipeline facilities.

However, exploration of the benefits or burdens of a project, which is not before the Board, is outside the scope of this proceeding; that is, what the benefits would be of a different project, built by a different company, involving altering of the M&NP Canada System to transfer the supply from Canaport, the cost for doing so and the benefits or burdens of such other project on other matters, such as the ability of Nova Scotia's future potential supply sources to access the market, are outside the scope of this proceeding.

The speculative impact on the levels of tolls, on M&NP Canada, if such a project were to be constructed are also not of probative value to the Board, in assessing the benefits and burdens of this Brunswick Pipeline Project.

There is no evidence submitted that any such speculative or hypothetical project would be constructed.[4] Spending time exploring these speculative and remote alternative projects is not of sufficient probative value to the Board, in determining whether this project is in the present and future of public convenience and necessity.

Alternatives to the project raised, in the context of CEAA, should not be used to delve into a detailed economic analysis of the benefits and burdens of that alternative, as it is outside of the scope of the Board's considerations under CEAA.

Accordingly, a discussion of whether an alternative or hypothetical project, which is not proposed before the Board, and how that hypothetical project could potentially serve incremental natural gas supply for the region, or affect future tolls on other pipelines is not sufficiently tied to an assessment of the benefits and burdens of the Brunswick Pipeline Project, and will not be permitted.

With this direction, Mr. Roth, you may ask any further questions that fall within this framework.

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[4] Correction to this word in the original transcript was made in transcript volume 12, paragraph 19686.

Appendix VII

National Energy Board Environmental Assessment Report

National Energy Board
Office national de l'énergie

NATIONAL ENERGY BOARD ENVIRONMENTAL ASSESSMENT REPORT

Pursuant to the *Canadian Environmental Assessment Act*

Brunswick Pipeline Project

April 2007

National Energy
Board

Office national
de l'énergie

NATIONAL ENERGY BOARD ENVIRONMENTAL ASSESSMENT REPORT

Pursuant to the *Canadian Environmental Assessment Act*

Brunswick Pipeline Project

Applicant Name:	Emera Brunswick Pipeline Company Ltd. (EBPC)
Preliminary Submission Date:	Project Description received 6 January 2006
Application Date:	23 May 2006
CEA Act Registration Date:	29 March 2006
CEA Registry Number:	06-03-17667
National Energy Board (NEB or Board) File Number:	OF-Fac-G-E236-2006-01 01 (3200-E236-1)
CEA Act Law List Trigger:	Section 52 of the *National Energy Board Act*
Date of Environmental Assessment Report:	April 2007

Canada

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SUMMARY

The Brunswick Pipeline Project (the Project) consists of a natural gas transmission pipeline from the Canaport™ liquefied natural gas (LNG) Terminal at Mispec Point, near Saint John, New Brunswick (NB), to an export point at the Canada-United States (US) border. The Project would include a pipeline of approximately 145 km, about 35 km of which would be within the Saint John area, as well as a number of associated facilities.

The federal Minister of the Environment approved the National Energy Board's (NEB or Board) use of its own public hearing process for assessing the environmental effects of the Project as a substitute for an environmental assessment (EA) by a review panel under the substitution provisions of the *Canadian Environmental Assessment Act* (CEA Act). This Report sets out the rationale, conclusions and recommendations of the Board in relation to its review of the Project under the CEA Act and includes a discussion of recommended mitigation measures and follow-up programs. A number of recommendations were made by the Board, some of which are in this summary. The remaining recommendations are included in section 9 of the EA and are discussed throughout the Report. If the Project proceeds to regulatory approval, the Board would recommend that these be included as conditions to any Certificate issued by the Board.

This Report also provides a summary of comments received from the public. If the Project proceeds to regulatory consideration, it will be considered under the *National Energy Board Act* (NEB Act) for a Certificate of Public Convenience and Necessity, and a decision and Reasons for Decision will be issued under that Act.

The Board considered the evidence of Emera Brunswick Pipeline Company Ltd. (EBPC or the Proponent), Intervenors and Government Participants, and public comments received during its review of the Project. The Board has determined that, provided all commitments made by EBPC in its application and undertakings during the GH-1-2006 proceeding are upheld, and the Board's recommendations are implemented, the Project is not likely to result in significant[1] adverse environmental effects. The Board therefore recommends that the Project be allowed to proceed to regulatory and departmental decision-making as long as the recommendations in this Report are made part of the requirements of any Certificate issued by the NEB.

The Board was asked by Intervenors to include in its review of the Project the environmental effects of the Canaport™ LNG Terminal. However, the Board ruled that the Canaport™ LNG Terminal or the LNG tanker activity was beyond the scope of the project for the EA of the Project. The Board notes that the environmental effects of the Canaport™ Terminal were considered in the environmental assessment conducted by FAs under the CEA Act and by the Province of New Brunswick under provincial environmental assessment regulations. The Board therefore limited its review of the Terminal and tanker traffic to the extent relevant as cumulative environmental effects likely to result from the Project in combination with other projects or activities that have been or will be carried out.

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[1] Significant environmental effects would typically involve environmental effects that are a combination of several of high frequency, irreversible, long term in duration, large in extent, or high magnitude.

Purpose of, Need for and Alternatives to the Project

The primary purpose of and need for the Project, according to EBPC, is to provide the necessary new infrastructure to transport natural gas from the Canaport™ LNG Terminal, currently being constructed near Saint John, to markets in Maritimes Canada and the Northeastern US. Alternatives to the Project considered included transportation of the LNG supply by ship, truck or train, but such options did not compare to the cross-border pipeline option in terms of economic feasibility and environmental appropriateness. Further, the existing Saint John Lateral pipeline would not be a technically or economically viable option for meeting the Project's objectives.

Other parties to the hearing argued that expansion of the Maritimes & Northeast Pipeline (M&NP) System would be a safe and economically feasible alternative to the Project and that EBPC's consideration of alternatives to the Project was inadequate.

The Board considered the alternatives and concluded that the need for and the purpose of the Project, for the purpose of the CEA Act EA, are to be established from the perspective of EBPC. The alternatives to the Project to be considered in this EA are to be informed by the purpose of and need for the Project. The Board is satisfied that it was reasonable for EBPC to conclude that the alternatives to the Project it considered, that would meet the purpose of and need for the Project from the Proponent's perspective, were not technically and economically feasible, and therefore are not viable alternatives to the Project. The information provided during the hearing supports EBPC's conclusion.

Alternative Means

EBPC considered several alternative means, including alternative corridors, in selecting its preferred route for the Project. Alternative corridors were considered for both the urban and rural portions of the route, and included a marine crossing of the Bay of Fundy as one of the urban alternatives.

Intervenors argued that EBPC's dismissing of the marine route option was not adequately supported, that EBPC misrepresented or over-estimated the difficulties, costs, or risks associated with the marine crossing, and that a marine crossing would be safer than the proposed route through the City of Saint John.

The Board also considered evidence related to alternative construction methods and size of pipe.

The Board finds that EBPC provided sufficient evidence regarding its consideration of a marine crossing of the Saint John Harbour, and that this evidence underwent broad questioning by parties to the hearing. EBPC's evidence was supported by credible expert witnesses and EBPC's conclusions with respect to the feasibility of a marine crossing were reasonable, based on the evidence adduced.

The Board concludes that EBPC provided adequate information on alternative corridors and construction methods that are technically and economically feasible for the Board to consider these alternative means and their environmental effects. The rationale provided by EBPC for rejecting the alternative means it considered, as well as the Intervenors' proposed alternative means, is reasonably founded in the evidence, and supports, among other things, the selection of the preferred corridor, construction methods and size of pipe.

Public Participation

Seventy-two parties registered as Intervenors and three parties registered as Government Participants in the NEB's hearing process. In addition, 184 letters of comment from the public were entered onto the record and oral statements were provided by 19 individuals, two of whom represented organizations in Saint John. The Board has taken into consideration comments from the public in assessing the Project.

Various participants expressed dissatisfaction with the public consultation program carried out by the Project Proponent. An evaluation of EBPC's consultation program undertaken pursuant to the guidelines set out in the NEB's Filing Manual, including but not limited to consultation activities related to environmental matters, will be included in the Board's Reasons for Decision issued pursuant to its mandate under the NEB Act. The evaluation in the Reasons for Decision will provide a more comprehensive assessment of the consultation program, including consideration of the comments and concerns raised by participants. While recognizing that certain areas could have been improved, the Board is satisfied that EBPC and the NEB public hearing process have met the requirements for public participation under the CEA Act.

Environmental Effects on the Biophysical Environment

Certain potential adverse environmental effects on the biophysical environment generated particular public concern. These potential adverse environmental effects involved non-standard mitigation measures, monitoring or follow-up programs, or required the implementation of an issue-specific recommendation, and included effects on Species at Risk and Species of Conservation Concern, wetlands and Rockwood Park, as well as effects from unauthorized access to the right of way (RoW) and acid rock drainage. The Board made recommendations with respect to managing biophysical environmental effects, including:

- the development of a site-specific environmental protection plan (EPP) demonstrating evidence of consultation with relevant regulatory authorities;
- the development of an access management plan demonstrating consultation with stakeholders; and
- the design and implementation of follow-up programs related to fish and fish habitat, wetlands, access management, and reclamation of Rockwood Park.

Environmental Effects on the Socio-Economic Environment

Certain potential adverse environmental effects on the socio-economic environment generated particular public interest. These involved non-standard mitigation measures, monitoring or follow-up programs, or required the implementation of an issue-specific recommendation, and included effects on recreational use of Rockwood Park, on heritage resources, and on the current use of lands and resources for traditional purposes by Aboriginal Persons as well as effects from noise. The Board made recommendations with respect to managing socio-economic environmental effects, including:

- an update on the recommendations identified in EBPC's Traditional Ecological Knowledge (TEK) Study;
- conducting archaeological studies and associated monitoring; and
- the design and implementation of follow-up programs related to horizontal directional drill noise management.

Accidents and Malfunctions

Many of the comments received from the public regarding this Project were concerns about the consequences of a pipeline leak or rupture and potential associated fire, concerns about access to communities in the event of an emergency and the capacity of first responders to handle an emergency.

EBPC's proposed Environmental Management Framework includes programs to avoid a pipeline leak or rupture. In the event of a leak or rupture, EBPC has set out the programs it would have in place to respond to emergencies. These programs would be aimed at minimizing the negative effects of a leak or rupture, and include cooperation with first responders and consideration of access to communities.

In this Report, the Board makes specific recommendations regarding the development of an Emergency Procedures Manual and the conduct of emergency response exercises. Given the Environmental Management Framework and the Board's recommendations, the Board is of the view that it is unlikely that the Project would result in a pipeline leak or rupture leading to a fire. EBPC's Emergency Preparedness and Response Program would provide a means of preparing to respond in the event of a leak or rupture. Therefore, the Board finds that the proposed Project would not likely cause significant adverse effects as a result of an accident or malfunction.

Cumulative Environmental Effects

Concerns were expressed regarding the consideration of the Canaport™ LNG Terminal and associated tanker activity in the cumulative effects assessment. Concerns were also expressed regarding cumulative effects resulting from greenhouse gas emissions and on air quality.

The Board concludes that given the nature of the Project, EBPC's proposed mitigation measures, the recommendations of the Board, and the limited extent of any residual effects, that significant adverse cumulative effects of the Project are unlikely.

Need for and Requirements of Follow-up Programs under the CEA Act

The Board considered the need for and requirements of follow-up programs in the EA. Specific areas of follow-up that would be required by the Board include: fish and fish habitat, wetlands, access management, horizontal directional drill noise management, and reclamation of Rockwood Park.

Ongoing Commitments

The Board notes EBPC's commitment to its ongoing consultation program. The Board expects that EBPC would continue consulting with potentially affected stakeholders prior to, during and after construction of the pipeline, and over the lifetime of the Project. Some examples of ongoing consultation are the commitments by EBPC for continuing education programs for first responders and public awareness programs.

Comments on the Substitution Process

The NEB wishes to acknowledge the effort of its federal partners toward streamlining the regulatory process while maintaining the breadth and quality of the environmental assessment. The hearing process, as an integrated process considering environmental assessment as well as other issues relevant to the public interest, allowed the Board to hear from a broad spectrum of participants on a wide range of issues. The input was significant to the Board in its deliberations.

The success of this pilot project was made possible through the commitment and cooperation of the CEA Agency, federal departments involved in the environmental assessment as well as the participation of the people of New Brunswick who shared their views with the Board through written and oral presentations. The NEB also recognizes the cooperation of EBPC and its consultants.

The Board sincerely thanks all who participated in or otherwise supported this hearing and in particular the Board thanks the people of New Brunswick.

Information Sources

The analysis for this environmental assessment report is based on evidence submitted to the NEB by EBPC within the GH-1-2006 proceeding. The analysis also considers the comments received from the public (summarized in Section 5.5) and comments or recommendations received from Responsible Authorities and Federal Authorities (summarized in Appendix 1).

To view this information please refer to the NEB website at www.neb-one.gc.ca. Select "Regulatory Documents", then "Gas" under the "Facilities" list, then "Emera Brunswick Pipeline Company Ltd", and finally "2006-05-02 – Application for the Brunswick Pipeline Project (GH-1-2006)".

For more details on how to obtain documents, please contact the Secretary of the NEB at the address specified in the Section 10.0 of this Report.

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LIST OF ABBREVIATIONS

Al	aluminum
Anadarko	Bear Head LNG Corporation, Anadarko Canada LNG Marketing, Corp. and Anadarko LNG Marketing, LLC
ARD	acid rock drainage
As	arsenic
ATV	all-terrain vehicle
Board	National Energy Board
CCME	Canadian Council of Ministers of the Environment
CEA Act	*Canadian Environmental Assessment Act*
CEA Agency	Canadian Environmental Assessment Agency
CEPA 1999	*Canadian Environmental Protection Act 1999*
CO	carbon monoxide
CO_2	carbon dioxide
CO_2 e/year	carbon dioxide equivalents per year
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CSA	Canadian Standards Association
Cu	copper
DAS	Disposal at Sea
DFO	Department of Fisheries and Oceans Canada
EA	environmental assessment
EBPC, the Applicant, or the Proponent	Emera Brunswick Pipeline Company Ltd.
EC	Environment Canada
Eldridge-Thomases	Dr. Leland Thomas and Ms. Janice Eldridge Thomas
EMO	emergency management organizations
EPP	environmental protection plan
EPZ	emergency planning zone

ERP	field emergency response plan
ESEA	environmental and socio-economic assessment
FA	federal authority
Fe	iron
FORP	the Friends of Rockwood Park
GHG	greenhouse gases
ha	hectare
HADD	harmful alteration, disturbance or destruction
HC	Health Canada
HDD	horizontal directional drill
IPL	international power line
km	kilometre
kPa	kilopascal
LNG	liquefied natural gas
m	metre
M&NP	Maritimes & Northeast Pipeline Management Ltd.
mm	millimetre
Mn	manganese
MMBtu	million British thermal units
NB	New Brunswick
NBDELG	New Brunswick Department of Environment and Local Government
NBDNR	New Brunswick Department of Natural Resources
NBDOE	New Brunswick Department of Environment
NB ESA	*New Brunswick Endangered Species Act*
NB Power	New Brunswick Power
NEB	National Energy Board
NEB Act	*National Energy Board Act*
NPS	nominal pipe size

NRCan	Natural Resources Canada
OPR	*Onshore Pipeline Regulations, 1999*
OPS	operational policy statement
Pembina	the Pembina Institute
ppb	parts per billion
(the) Project	the proposed Brunswick Pipeline Project
psig	pounds per square inch, gauge
RA	responsible authority
Repsol	Repsol Energy Canada Ltd.
RoW	right of way
SARA	*Species at Risk Act*
SJFD	Saint John Fire Department
SJL	Saint John Lateral
TEK	Traditional Ecological Knowledge
UNBI	Union of New Brunswick Indians
US	United States
WAWA	Watercourse and Wetland Alteration Permit
Zn	zinc
$\mu g/m^3$	microgram per cubic metre

GLOSSARY

alternative means	the various ways that are technically and economically feasible that the project can be implemented or carried out
alternatives to	functionally different ways to meet the project need and achieve the project purpose
archaeological and heritage resources	any physical remnants found on top of and/or below the surface of the ground that inform us of past human use of and interaction with the physical environment
cumulative environmental effects	environmental effects that are likely to result effect from the Project in combination with projects or activities that have been or will be carried out (defined in the CEA Act)
construction	construction includes all activities required to construct the Project, including all clearing activities
deer wintering area	an area currently used by deer during winter, including adjacent stands that have a potential for providing shelter and food on a long-term (>50 years) basis
dry crossing	installation of the pipeline under a watercourse involving isolation of the flowing water from the pipeline trench in the watercourse by damming of the water and diverting the flowing water around the construction zone using water pumps or culverts
environmental effect	in respect to a project, (a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species as those terms are defined in section 2(1) of the *Species at Risk Act*, (b) any effect of any change referred to in paragraph (a) on health and socioeconomic conditions, on physical and cultural heritage, the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or (c) any change to the project that may be caused by the environment (defined in the CEA Act)

Endangered	under SARA, wildlife species listed as endangered are facing imminent extirpation or extinction
Environmentally Significant Area	an area identified by the Nature Trust of New Brunswick as having a rich area diversity of species or special features (e.g., rare plants or animals)
federal authority (FA)	a) a Minister of the Crown in right of Canada, (b) an agency of the Government or other body established by or pursuant to an Act of Parliament that is ultimately accountable through a Minister of the Crown in right of Canada to Parliament for the conduct of its affairs, (c) any department or departmental corporation set out in Schedule I or II to the Financial Administration Act, and (d) any other body that is prescribed pursuant to regulations made under paragraph 59(e) (defined in the CEA Act)
follow-up program	a program for verifying the accuracy of the environmental assessment of a project, and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project (defined in the CEA Act)
greenhouse gas	radiative gases in the earth's atmosphere which absorb long-wave heat radiation from the earth's surface and re-radiate it, thereby warming the earth (e.g., carbon dioxide and water vapour)
grubbing	the removal of roots and stumps after clearing activities
horizontal directional drill	a river, railroad, highway, shoreline and marsh crossing technique used in pipeline construction in which the pipe is installed under specified no-dig areas at depths usually greater than conventional crossings. An inverted arc-shaped hole with two sag bends is drilled beneath the no-dig area and the preassembled pipeline is pulled through it
hydrostatic test	a test in which the pipeline is filled with water and pressurized to demonstrate that no defect (e.g., weld integrity) is present that would cause an immediate failure at the operating pressure
induced potential	voltage induced on a pipeline from high voltage overhead powerlines in close proximity

launcher/receiver site	facilities used to launch and receive pipeline internal inspection and cleaning equipment
Mature Coniferous Forest Habitat	stands with the structural and spatial attributes required by old forest-dependent species such as American marten (*Martes americana*)
May be at risk	species or populations that may be at risk of extirpation or extinction, and are therefore candidates for a detailed risk assessment (designated by NBDNR)
meter station	a facility to monitor natural gas flow in pipeline systems (i.e., gas entering and leaving the pipeline system); meter stations may also allow for monitoring of natural gas quality
mitigation	in respect of a project, the elimination, reduction or control of the adverse environmental effects of the project, and includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means (defined in the CEA Act)
need for the project	the problem or opportunity the project is intending to solve or satisfy
purpose of the project	what is to be achieved by carrying out the project
Regionally Endangered	under the NB ESA, any indigenous species of fauna or flora threatened with imminent extirpation throughout all or a significant portion of its range in the Province and designated by regulation as regionally endangered
responsible authority (RA)	in relation to a project, a federal authority that is required pursuant to subsection 11(1) of the CEA Act to ensure that an environmental assessment of the project is conducted (defined in the CEA Act)
right of way	the area which must be cleared (vegetation), crossed (watercourse), or developed (land) for the purpose of installing a pipeline
Sensitive	species which are not believed to be at risk of extirpation or extinction, but which may require special attention or protection to prevent them from becoming at risk (designated by NDNR)

Species at Risk	all species listed in Schedule 1 of the SARA as "extirpated", "endangered", or "threatened", or listed by the NB ESA as "endangered" or "regionally endangered"
Species of Conservation Concern	species not under the protection of the SARA or the NB ESA (i.e., listed in the SARA but not as "extirpated", "endangered", or "threatened" in Schedule 1; listed as "species of special concern" within Schedule 1 of the SARA; or ranked as "S1", "S2", or "S3" by the Atlantic Canada Conservation Data Centre and also ranked as "at risk", "may be at risk", or "sensitive" by NBDNR)
Species of Special Concern	under SARA, wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats
Threatened	under SARA, wildlife species that are likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction
Watershed Protection Area	Area in which there are limits to land use that may pose a risk to surface water supplies within the watershed
wet crossing	installation of the pipeline under a watercourse by constructing directly through the undiverted flow of the watercourse

1.0 SUBSTITUTION PROCESS FOR THE ENVIRONMENTAL ASSESSMENT OF THE BRUNSWICK PIPELINE PROJECT

1.1 Environmental Assessment Coordination

The National Energy Board (NEB or the Board) received a project description for the proposed Brunswick Pipeline Project (the Project) from Maritimes & Northeast Pipeline Management Ltd. (M&NP) on 6 January 2006. The NEB then notified potential federal and provincial authorities about the Project, pursuant to the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* under the *Canadian Environmental Assessment Act* (CEA Act).

The NEB, the Department of Fisheries and Oceans Canada (DFO), and Transport Canada are responsible authorities (RAs) pursuant to the CEA Act for the environmental assessment (EA) of the Project. Environment Canada (EC) and the Canadian Transportation Agency identified themselves as possible RAs for the EA.

The potential federal permits and authorizations that triggered the CEA Act and would or may be necessary for the Project are:

- a Certificate of Public Convenience and Necessity issued pursuant to section 52 of the *National Energy Board Act* (NEB Act);
- authorization by DFO pursuant to subsection 35(2) and/or section 32 of the *Fisheries Act*;
- authorization by Transport Canada under section 5(1) or 6(4) of the *Navigable Waters Protection Act* or section 108 and 109 of the NEB Act;
- authorization by EC for disposal at sea pursuant to the *Canadian Environmental Protection Act* (CEPA 1999); and
- authorization by the Canadian Transportation Agency under subsection 101(3) of the *Canada Transportation Act*.

To assist in the EA process, Natural Resources Canada (NRCan) and Health Canada (HC) provided expert advice in relation to the Project.

Comments, recommendations and specialist advice received by RAs and federal authorities (FAs)[2] during the process have been addressed in relevant sections of this EA Report and are summarized in Appendix 1.

The Project must be registered as an undertaking pursuant to the New Brunswick *Environmental Impact Assessment Regulation* under the New Brunswick *Clean Environment Act*. The New Brunswick Department of Environment (NBDOE) administers this regulation and requires that an environmental impact assessment be carried out and approved by the Government of New Brunswick before the Project can proceed.

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[2] The definitions of RA and FA are set out in the Glossary.

The NEB coordinated the EA process with all involved federal and provincial departments. The Canadian Environmental Assessment Agency (the CEA Agency) was also involved in coordination activities.

1.2 Process

Based on M&NP's January 2006 project description mentioned above, the NEB determined on 16 February 2006 that the Project required a comprehensive study pursuant to the CEA Act *Comprehensive Study List Regulations*. On 16 March 2006, the NEB subsequently requested, on behalf of the RAs, that the federal Minister of the Environment refer the Project to panel review. In the same letter, the NEB requested that the panel review be conducted by the NEB under the substitution provisions of the CEA Act. On 3 May 2006, the Minister of the Environment referred the Project to panel review and approved the NEB's request for substitution pursuant to subsection 43(1) of the CEA Act.

The substitution provisions of the CEA Act allow an FA to use its own process for assessing the environmental effects of a project as a substitute for an EA by a review panel under the CEA Act. In this case, the Minister's approval allowed the NEB's public hearing process to substitute for an EA by a review panel under the CEA Act. The requirements for the substituted process were set out in correspondence among the CEA Agency, the NEB, and the Minister of the Environment, attached as Appendix 2.

In a letter dated 14 March 2006, M&NP advised the NEB and the CEA Agency that upon further review, the actual applicant for the Project may be a distinct special-purpose corporate entity. The identity and ownership of the entity may change, but the physical project would remain as described in the project description.

The NEB received an application for the Project on 23 May 2006 from Emera Brunswick Pipeline Company Ltd. (EBPC, the Applicant or the Proponent), as the new owner of the Project. The NEB released the hearing order for the NEB public hearing process on 9 June 2006. Hearing Order GH-1-2006 set out opportunities for participation in the process through letters of comment, oral statements or interventions. For FAs, or provincial agencies with an EA responsibility for the Project, the Hearing Order also offered the opportunity for participation as a Government Participant. Seventy-two parties registered as Intervenors and three parties registered as Government Participants in the process.

Based on the 6 January 2006 project description submitted by M&NP, the NEB released a draft EA Scoping Document for the Project on 5 May 2006 for public comment. Several comments on the draft document were received during the comment period, which closed on 7 June 2006. EBPC replied to the public comments on 12 June 2006. A summary of all comments received by the NEB on the draft document is included in Appendix 3.

After considering comments received on the Scoping Document, the NEB determined and released the scope of the EA on 23 June 2006 (Appendix 4). Based on the requirements of the CEA Act and the factors to be considered as set out in the Scoping Document, the EA includes a consideration of the following factors listed in paragraphs 16(1)(a) to (d) and subsection 16(2) of the CEA Act:

1. the environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
2. the significance of the effects referred to in paragraph 1;
3. comments from the public that are received during the public review;
4. measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project;
5. the purpose of the Project;
6. alternative means of carrying out the Project that are technically and economically feasible and the environmental effects of any such alternative means;
7. the need for, and the requirements of, any follow-up program in respect of the Project; and
8. the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future.

In accordance with paragraph 16(1)(e) of the CEA Act, the EA also includes a consideration of the following additional matters:

1. the need for the Project; and
2. alternatives to the Project.

During the public hearing process, referred to as the GH-1-2006 proceeding, the NEB obtained information from EBPC through both written and oral processes. Prior to the oral portion of the hearing, the Applicant, Intervenors and Government Participants had the opportunity to provide written evidence, and responded to information requests from the NEB and other parties on this evidence. In addition, 184 letters of comment from the public were entered onto the record for the GH-1-2006 proceeding.

The oral portion of the public hearing was held in Saint John, New Brunswick (NB) from 6 to 20 November 2006. EBPC presented five witness panels which were cross-examined by Intervenors and questioned by the Board. Intervenor witness panels were also available for cross-examination. Oral statements were provided by 19 individuals, two of whom represented organizations in Saint John. The written final argument portion of the hearing concluded on 22 December 2006. The entire NEB public hearing process allowed a variety of participants to provide their views on the Project - Intervenors, Government Participants, letter of comment writers and oral statement makers, including individuals, organizations and government representatives.

In the past, panel reviews under the CEA Act have often been integrated with the NEB's public hearing process under the NEB Act, as have EAs of projects undertaken at a screening or comprehensive study level. The hearing process used for this proceeding was very similar. The primary differences between a panel review carried out in an integrated manner with the NEB public hearing process and the current substituted process are:

- all panel members are members of the NEB in the substituted process; and
- the Project was quickly referred to a panel review and a substituted process as opposed to undergoing a more extended EA track decision process which would require a public consultation process on a proposed scope of the EA followed by the preparation and submission of a track recommendation report to the Minister of the Environment.

1.3 Environmental Assessment Report

In this EA Report, the Board sets out its rationale, findings, conclusions and recommendations, including any mitigation measures that should be implemented and the NEB's recommended follow-up programs should the Project be approved under the NEB Act. This Report also provides a summary of comments received from the public (see section 5.5). Once issued, this Report will be submitted to the Minister of the Environment and the RA Ministers for the preparation of the government response.

The NEB must await the government response to this EA Report and take this into consideration before making any decision under the NEB Act. The content of this Report and the government response will be considered in the Board's deliberations, but the conclusions reached in this Report do not dictate the outcome of the Board's regulatory decision under the NEB Act, as there are additional factors beyond those considered in the EA that the Board must consider under the NEB Act in order to determine whether the Project is in the present and future public convenience and necessity.

1.4 Participant Funding

The CEA Agency administered a Participant Funding Program to assist the participation by interested individuals and organizations in the environmental review of the Project. The independent funding committee assessed applications for funding and awarded a total of $135,900 to six parties. The funds were intended to assist recipients in reviewing the application and in preparing for and participating in EA portions of the GH-1-2006 proceeding.

2.0 DESCRIPTION OF THE PROJECT

EBPC described the Project as a stand-alone, separately-owned pipeline project. It is not integrated with the system owned and operated by M&NP in Canada. M&NP commenced development of the Project on a stand-alone basis, separate from the rest of its system. On 15 May 2006, M&NP transferred all of its rights and interests in the Project to EBPC. The Project as discussed in this Report is based on the evidence submitted by EBPC as the Applicant.

2.1 Project Maps

Figures 1 through 4 provide maps of the Project that are referred to in subsequent sections.

Figure 1
Preferred Corridor and Rockwood Park Variants - Brunswick Pipeline Project

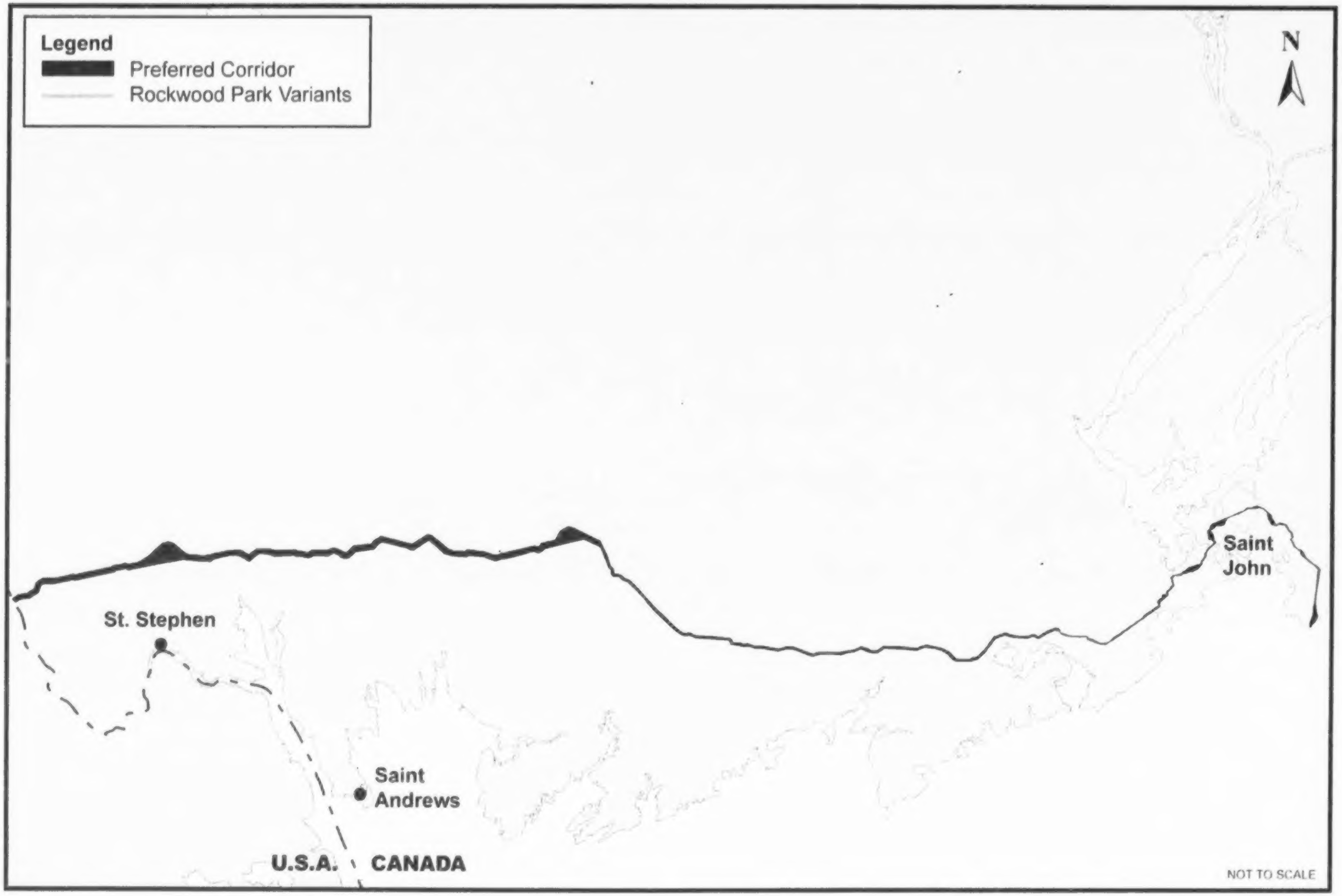

Legend
Preferred Corridor
Rockwood Park Variants
N
St. Stephen
Saint Andrews
Saint John
U.S.A.
CANADA
NOT TO SCALE

Figure 2
Proposed Pipeline Corridors - Preliminary Evaluation of Proposed Pipeline Routes

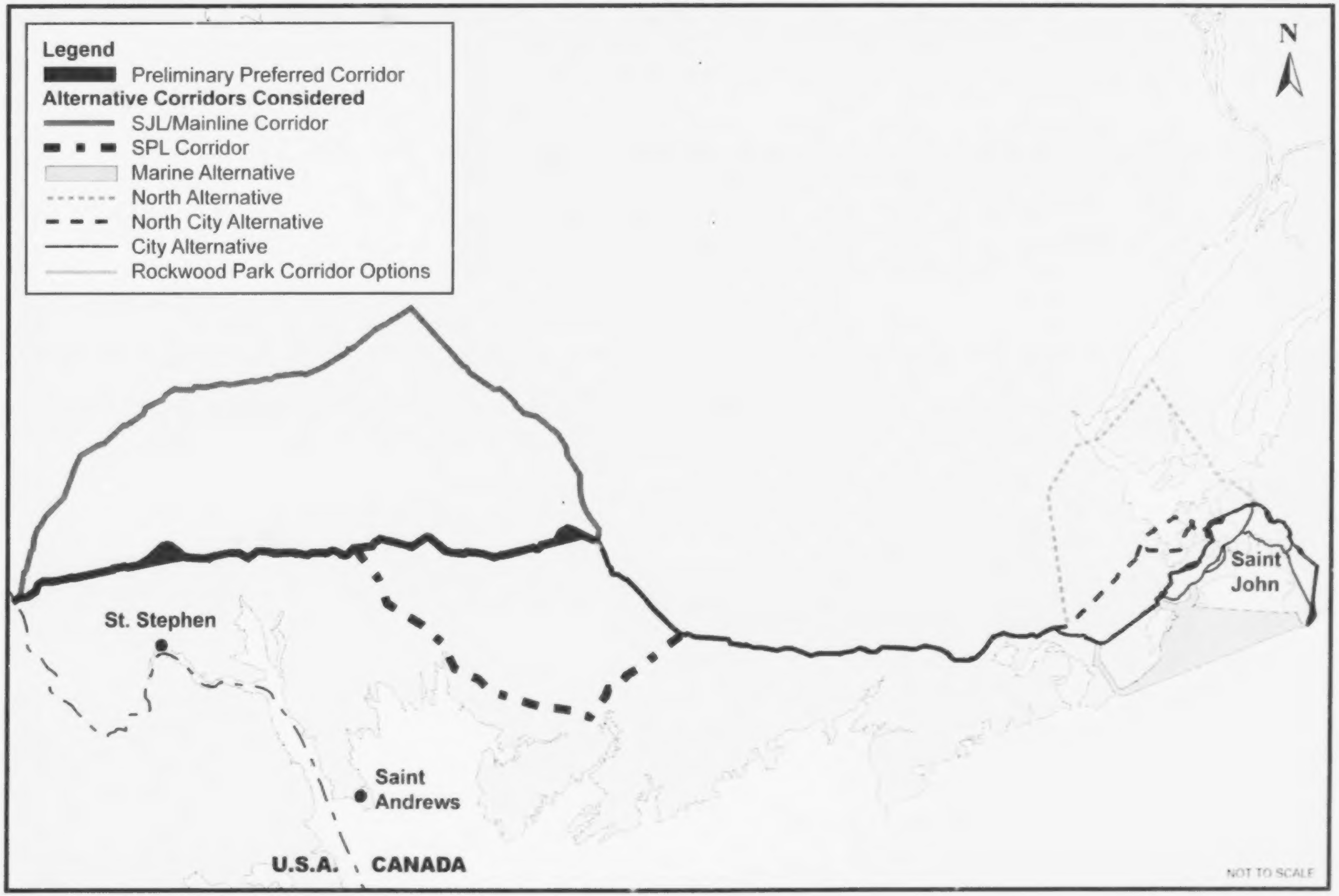

Legend
Preliminary Preferred Corridor
Alternative Corridors Considered
SJL/Mainline Corridor
SPL Corridor
Marine Alternative
North Alternative
North City Alternative
City Alternative
Rockwood Park Corridor Options
N
Saint John
St. Stephen
Saint Andrews
U.S.A.
CANADA
NOT TO SCALE

Figure 3
Proposed Urban Pipeline Corridors - Preliminary Evaluation of Proposed Pipeline Routes

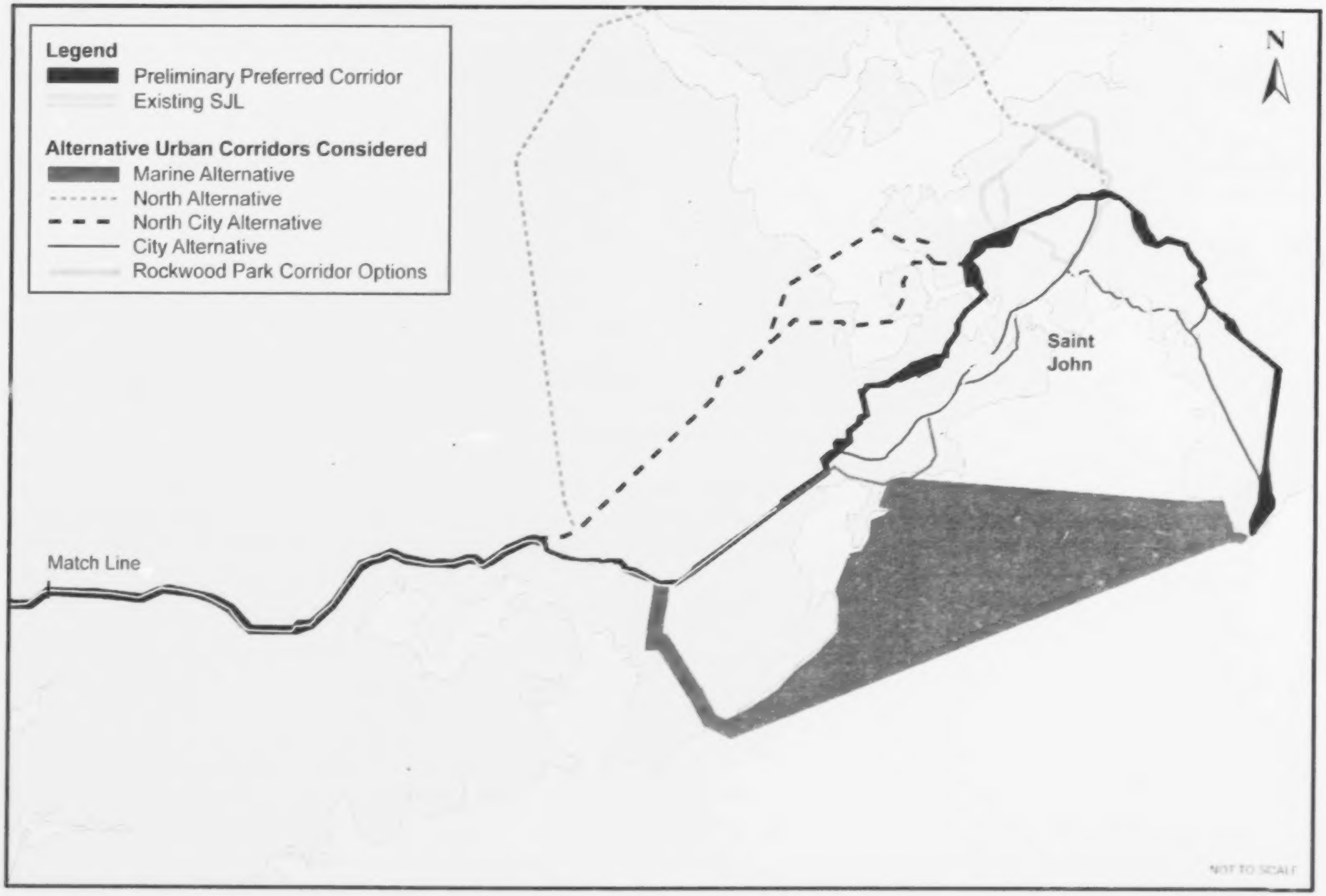
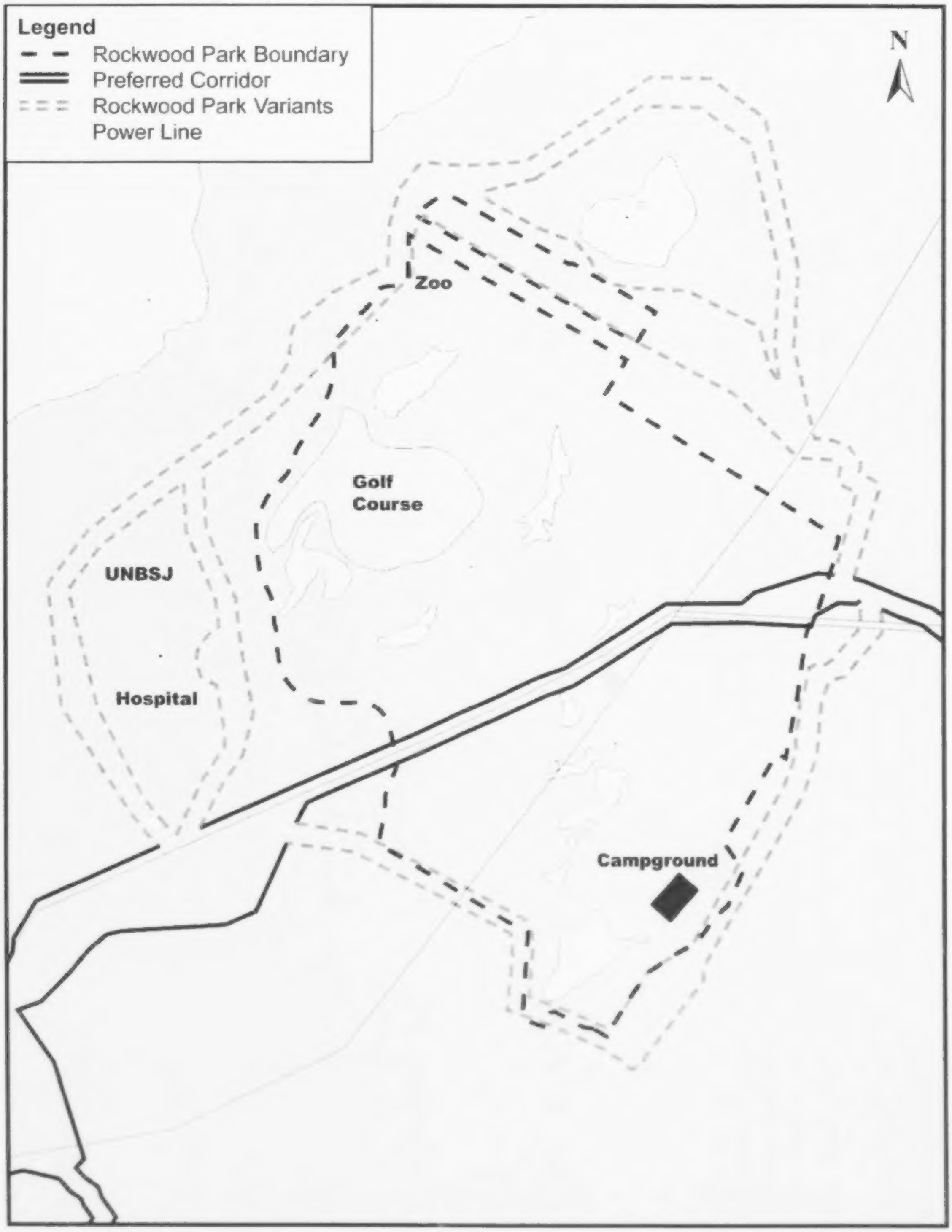

Legend
Preliminary Preferred Corridor
Existing SJL
Alternative Urban Corridors Considered
Marine Alternative
North Alternative
North City Alternative
City Alternative
Rockwood Park Corridor Options
N
Saint John
Match Line
NOT TO SCALE

Figure 4
Rockwood Park Variants and Preferred Corridor


Legend
Rockwood Park Boundary
Preferred Corridor
Rockwood Park Variants
Power Line
N
Zoo
Golf Course
UNBSJ
Hospital
Campground

2.2 Project Components

The scope of the Project being assessed is in accordance with that outlined in section 2.1 of Appendix 4 – Environmental Assessment Scoping Document.

The Project consists of a natural gas transmission pipeline from the Canaport™ liquefied natural gas (LNG) Terminal (currently under construction) at Mispec Point, near Saint John, NB, to an export point at the Canada-United States (US) border. EBPC submitted that the Project would include a pipeline of approximately 145 km, about 35 km of which would be within the Saint John area, as well as a number of associated facilities, including: six valve sites, a combined meter station and launcher site, and a combined valve and launcher/receiver site. The pipeline itself would be 762 mm (30 inches) in diameter and would operate at a maximum pressure of 9 930 kPa (1,440 psig).

The following description of the Project is based on the evidence submitted by EBPC.

The pipeline, the associated facilities and the required right of way (RoW) would be located within the preferred corridor shown in Figure 1.

During construction, work would be confined to the 30 m-wide RoW with additional temporary work areas required at watercourse and road crossings, and construction staging areas. For the purposes of this Report and the recommendations herein, the term "construction" includes all clearing activities.

RoW clearing would mostly be conducted during the winter months and the remainder of project construction would be completed during the summer and fall. However, EBPC anticipates that limited construction, other than clearing, would be conducted during the winter months. Where practicable, the Project RoW would parallel and overlap existing RoWs. Marshalling yards, storage areas and access roads to the RoW would also be required on a temporary basis. EBPC anticipates that existing roads could be used for access to the RoW and planned valve sites during the operation and maintenance phase of the Project.

No compressor stations are anticipated for the Project, as sufficient pressure for transporting the natural gas would be provided at the Canaport™ LNG Terminal. The entire pipeline system would be installed subsurface with the exception of valve sites (three in urban Saint John and three in rural areas), a combined meter station and launcher site (immediately outside of the Canaport™ LNG Terminal battery limits), and a combined valve and launcher/receiver site adjacent to line valve 63 on the existing Saint John Lateral (SJL) (off of the West Branch Road, Musquash). Each of the sites would require the installation of a permanent access road.

Valve sites would be fenced areas, approximately 20 m x 20 m, which would be locked and regularly inspected for safety and security. These sites would include:

- sectional valves with manual and remote control capability;
- blowdown capabilities;
- a small building approximately 2.4 m x 3.0 m to house electronic equipment; and
- power and telecommunications supply (e.g., satellite communications dish).

The combined meter station and launcher site would be a fenced and graveled area, approximately 50 m x 50 m, which would be locked and regularly inspected for safety and security. The meter station and launcher site would include:

- station inlet and outlet valving, sectionalizing block and yoke valves with manual and remote operations capability;
- blowdown capabilities;
- check valving;
- internal inspection equipment launching facilities;
- measurement and gas analysis equipment, and associated facilities;
- a measurement building to house the custody transfer meter runs and gas sampling equipment (building size to be determined);
- a small building approximately 3.0 m x 3.4 m to house electronic equipment; and
- power and telecommunications supply (e.g., satellite communications dish).

The combined valve site and launcher/receiver site would be a fenced and graveled area, approximately 30 m x 100 m, which would be locked for safety and security. The site would include:

- sectional valves with manual and remote control capability;
- blowdown capabilities;
- launching and receiving facilities for internal inspection equipment;
- a small building approximately 2.4 m x 3.0 m to house electronic equipment; and
- power and telecommunications supply, where available (e.g., satellite communications dish).

2.3 Primary Project Activities

Table 2.3.1 below summarizes the Project activities for the construction phase (including clearing) of the Brunswick Pipeline Project. EBPC stated that clearing was anticipated to commence in the winter of 2007 with the remaining construction beginning in the summer of 2008. EBPC's expected in-service date is late in 2008.

2.3.1 Summary of Project Construction Activities

Project Phase: Construction	
Activity Category	**Physical Work and/or Activity**
Site Preparation	Project-related activities may include: ▪ clearing; ▪ grubbing; ▪ grading; ▪ duff/topsoil stripping; and ▪ blasting.

Pipe Installation	Project-related activities may include: ▪ trenching (excavation); ▪ boring (road and railroad crossings); ▪ horizontal directional drills (HDD); ▪ blasting; ▪ stringing; ▪ bending; ▪ construction of valve sites; ▪ welding; ▪ non-destructive examination of welds (e.g., x-ray, gamma ray, ultrasonic, magnetic particle); ▪ pipeline installation; ▪ installation of cathodic protection systems; ▪ backfilling and duff/topsoil replacement; ▪ hydrostatic testing and dewatering; ▪ pipeline commissioning; ▪ installation of signage and fencing; and ▪ site restoration.
Watercourse Crossings	Watercourse crossing alternatives include wet crossing, dry crossing, or HDD. Project-related activities may include: ▪ site preparation; ▪ instream trenching (excavation); ▪ temporary watercourse diversion; ▪ HDD; ▪ installation of temporary watercourse crossing structures; and ▪ site restoration.
Temporary Ancillary Structures and Facilities	Temporary ancillary structures and facilities may include: ▪ temporary site access roads; ▪ petroleum storage areas; ▪ marshalling yards; and ▪ storage areas Project-related activities include restoration of these sites.

Table 2.3.2 summarizes the Project activities for the operations and maintenance phase of the Brunswick Pipeline Project. EBPC anticipates the life of the facilities to be a minimum of 25 years.

2.3.2 Summary of Project Operations and Maintenance Activities

Project Phase: Operations and Maintenance	
Activity Category	**Physical Work and/or Activity**
Project Presence	Includes all project-related aspects that would be present for the life of the Project, including: ▪ presence of the pipeline; ▪ presence of the RoW (including signage); ▪ presence of valve sites, launcher/receiver sites, and meter and regulating stations; and

	▪ cathodic protection infrastructure.
Pipeline Maintenance	Includes all project-related activities that are required to maintain the pipeline, including: ▪ monitoring of pipeline (including internal inspection); and ▪ maintenance of valve sites, and meter and regulating stations.
RoW Maintenance	Includes all project-related activities that are required to maintain the RoW, including: ▪ maintenance of vegetation; and ▪ installation of post-construction pipeline crossings.

Table 2.3.3 summarizes the Project activities for the decommissioning and abandonment phase of the Project.

2.3.3 Summary of Project Decommissioning and Abandonment Activities

Project Phase: Decommissioning and Abandonment	
Decommissioning	EBPC anticipated that the pipeline would be left in the ground, disconnected from any operating facilities, filled with an inert medium and sealed. Cathodic protection and land use monitoring would continue.
Abandonment	EBPC stated that, at the time of abandonment, applicable standards of the day would be followed. Any environmental effects associated with the abandonment phase are likely to be similar to those caused by the construction phase. Pursuant to the NEB Act, an application would be required to abandon the facility, at which time the environmental effects would be assessed by the NEB and other relevant agencies.

3.0 ENVIRONMENTAL ASSESSMENT PROCESS

3.1 How the NEB Considers Certain Factors under the CEA Act

During the hearing and in final argument, a number of parties discussed certain factors contained within section 16 of the CEA Act, which sets out the factors which an RA must consider under various types of EA, such as the one conducted for this Project. The factors most discussed in this hearing included those contained in paragraph 16(1)(e) "the need for the project and alternatives to the project"; paragraph 16(2)(a) "the purpose of the project"; and paragraph 16(2)(b) "alternative means that are technically and economically feasible and the environmental effects of any such alternative means."

"Cumulative environmental effects", contained under paragraph 16(1)(a) of the CEA Act, was another area of considerable discussion. The Board issued a number of rulings and directions with respect to its consideration of "cumulative environmental effects"; the key ones are attached as Appendices 8 and 9 of this Report. The Board's consideration of cumulative environmental effects of this Project is contained in section 7.3 of this Report.

In October 1998, the CEA Agency published an Operational Policy Statement (OPS) entitled *Addressing "Need for", "Purpose of", "Alternatives to" and "Alternative means" under the*

Canadian Environmental Assessment Act[3]. The purpose of the OPS is to provide clarification and guidance to RAs on how these factors should be considered in EAs conducted under the CEA Act. While not binding, the OPS provides some guidance to the Board in determining how certain factors may be addressed.

The Board is of the view that it may help parties to explain how these factors are considered by the Board as an RA under the CEA Act. Such an explanation is provided in sections 3.2 and 3.3 below.

The Board notes that there is some overlap between certain of these factors and the issues the Board typically considers pursuant to its mandate under the NEB Act; for example, the need for the project and the purpose of the project are often considered in Reasons for Decision on facilities applications. However, the level of detail required in considering these factors may vary both with the mandate under which the Board is considering them and the circumstances of the application before the Board. Where there are issues that may be relevant to both mandates, the Board will address those issues in this EA, in the context of the CEA Act, and in its subsequent Reasons for Decision, in the context of the NEB Act.

3.2 "Purpose of", "Need for" and "Alternatives to" the Project

3.2.1 Background

The OPS provides the following definitions for "need for" and "purpose of":

> "Need for" the project is defined as the problem or opportunity the project is intending to solve or satisfy. That is, "need for" establishes the fundamental rationale for the project.
>
> "Purpose of" the project is defined as what is to be achieved by carrying out the project.

The OPS suggests that "need for" and "purpose of" should be established from the perspective of the project proponent, and provide the context for the consideration of alternatives to the project. For private sector projects, proponents should provide a clear statement of the need for the project. Such a statement will establish the scope of the alternatives to be subsequently considered, that is, those within the control or interest of the proponent.[4]

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[3] OPS-EPO/2-1998

[4] In many of the Board's prior major pipeline hearings in which an EA was conducted under the CEA Act, the purpose of and need for the project generally were established from the perspective of the project proponent. See for example, *Report of the Joint Review Panel* OH-1-95, Express Pipeline Project, May 1996 (Express), at 11; *The Joint Public Panel Review Report*, Sable Gas Projects, October 1997 (Sable), at 16, 62-64; *Comprehensive Study Report* GH-3-97, Alliance Pipeline Project, September 1998 (Alliance), at p.8.; and the *Joint Review Panel Report*, GSX Canada Pipeline Project, July 2003 (GSX) at p. 193 – 205. Although the Board is not bound by its past decisions, these decisions may provide some assistance to parties in determining how the Board has consistently addressed these factors in the past.

The OPS defines "alternatives to" the project as functionally different ways to meet the project need and achieve the project purpose. The OPS recommends the following approach for addressing "alternatives to":

- "alternatives to" should be established in relation to the project need and purpose and from the perspective of the proponent; and
- analysis of "alternatives to" should serve to validate that the preferred alternative is a reasonable approach to meeting need and purpose and is consistent with the aims of the CEA Act.

In addition, the OPS states that the RA should:

- identify the alternatives to the project;
- develop criteria to identify the major environmental, economic and technical costs and benefits; and
- identify the preferred alternative to the project based on the relative consideration of the environmental, economic and technical benefits and costs.

This EA Report reflects this analysis in sections 3.2.2 through 3.2.4 below. Consideration of alternative means, including alternative pipeline corridors such as a marine crossing, is addressed in section 3.3.

Finally, the OPS indicates that analysis of "alternatives to" the project should describe the process the proponent used to determine that the project is viable (technically, economically and/or environmentally), and that the level of assessment should reflect the more conceptual nature of the "alternatives to" at this stage of the process.

3.2.2 EBPC's evidence on Purpose of, Need for and Alternatives to the Project

According to EBPC, the primary purpose of and need for the Project is to provide the necessary new infrastructure to transport natural gas from the Canaport^{TM} LNG Terminal, currently being constructed near Saint John, to markets in Maritimes Canada and the Northeastern US. EBPC submitted that the gas would be owned, supplied and shipped on the Brunswick Pipeline by Repsol Energy Canada Ltd. (Repsol), which is an indirect subsidiary of Repsol YPF, S.A, from whose supply portfolio the LNG would be sourced.

EBPC indicated in its environmental and socio-economic assessment (ESEA) that Repsol YPF, S.A. is one of the ten major private oil companies in the world with its oil and gas reserves located mostly in Latin America and North Africa. The proposed pipeline would enable the Repsol group of companies to market new gas supplies from the Canaport^{TM} LNG Terminal, commencing as early as November 2008. Specifically, the Project was designed to enable Repsol to transport up to 750,000 million British thermal units per day (MMBtu/d) of natural gas to various markets.

EBPC submitted that M&NP, as the predecessor proponent of the Project, considered a number of alternatives to the Brunswick Pipeline, and that none of the alternatives were found to satisfy the objectives of the Project in an environmentally-responsible and cost-efficient manner. EBPC concluded that here are no economically and technically feasible alternatives to using a pipeline to reliably transport large quantities of natural gas over the distance involved in the Project. While it is possible to transport LNG supply by ship, truck or train, such options did not compare to the cross-border pipeline option in terms of economic feasibility and environmental appropriateness.

EBPC further stated that the existing SJL would not be a technically or economically viable option for meeting the Project's objectives due to the anticipated volumes of natural gas to be shipped, the insufficient size and pressure of the existing SJL, and the impact of an outage on M&NP's customers related to replacing the existing SJL with a larger pipeline.

EBPC indicated that its customer, Repsol, has consistently sought service on a stand-alone, separately-tolled, NEB-regulated international pipeline, connecting the Canaport™ LNG Terminal to the M&NP US system at the Canada-US border. It argued that in addition to the reasons outlined above, Repsol would not be willing to pursue any other transportation proposal.

EBPC also argued that the suggested alternatives to the Project submitted by other parties would not meet the purpose of or need for the Project, which was for a stand-alone pipeline to transport 750,000 MMbtu/d of gas from the Canaport™ LNG Terminal at Mispec Point to the US border to interconnect with the M&NP US system.

3.2.3 Views of the Parties

Bear Head LNG Corporation, Anadarko Canada LNG Marketing, Corp. and Anadarko LNG Marketing, LLC (collectively "Anadarko") argued that the NEB must consider and provide its own views on the issues of both need and alternatives to the Project. Further, when the evaluation of alternatives is entirely based on the tolls of the proposed Project relative to tolls on an existing pipeline system, and when these tolls are the responsibility of the NEB (i.e., tolls are not set in the market place), the Board can not defer to Repsol's and EBPC's assessment of need and the desirability of alternatives.

Anadarko also argued that no one disputed that the expansion of the existing M&NP System was capable of connecting the Canaport™ LNG Terminal to markets in Maritimes Canada and the Northeastern US. As far as markets in Maritimes Canada are concerned, the M&NP alternative would have provided a superior direct connection relative to the Brunswick Pipeline Project. According to Anadarko, there is, however, no evidence on the record to suggest or in any way prove that expansion of the M&NP System would not have been safe and economically feasible for Repsol or anyone else or from which the Board could conclude that the use of the existing M&NP System is not safe or economically feasible.

Anadarko submitted evidence by Mr. Peter Milne supporting the expansion of the existing M&NP system in Canada to meet the purpose and need for the Project. Anadarko indicated that this evidence would allow the Board to "compare the relative environment, economic and technical benefits and costs" of the Brunswick Pipeline Project relative to the use of the existing M&NP System, and shows that expansion of the M&NP System is vastly superior from a public interest perspective.

The Friends of Rockwood Park (FORP) argued that the depth to which EBPC considered the possible use of the existing SJL corridor and infrastructure was inadequate, and that EBPC clearly had not considered hooking into the existing M&NP main line from Nova Scotia to the US border.

Dr. Leland Thomas and Ms. Janice Eldridge-Thomas (the Eldridge-Thomases) suggested one alternative to the Project could have been the construction of a line along existing RoW, to join up with the existing 30 inch M&NP infrastructure at an appropriate location near Sussex, NB, with the addition of compressors if required. Another alternative to the Project is to site a regassification facility (plant or ship) near the anchor market.

> ***Views of the Board***
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> In the Board's view, generally, "alternatives to" a project, in the context in which it arises in the CEA Act, may incorporate any feasible different methods for the transportation of gas; not undertaking the project at all; and any feasible different project that would achieve the objectives of the proposed project, including possible pipeline expansions or looping by other proponents.[5] Proposed alternatives that do not meet both the purpose of and need for the project, as defined by the proponent, may not be considered by the Board to constitute "alternatives to" the project under the CEA Act.[6] For projects under review which do not pose significant adverse environmental impacts, the Board may not be required to go further to make specific findings of fact or to conduct a comparative EA with respect to the alternatives to the projects under review.[7]
>
> It is worth noting that, unlike the requirement to consider the environmental effects of alternative means, there is no legislated requirement to consider the *environmental effects* of alternatives to the project. Nor is there a legislated requirement as to the amount or adequacy of evidence to be adduced with respect to alternatives to the project. In the Board's view, the requirement to consider alternatives to a project, when included as part of the scope of factors to be considered when conducting an EA, as is the case here, does not elevate alternatives to the same position as the project under review, or necessarily require the same quantity or detail of evidence as is required for the project under review. The focus of the mandate always remains upon the project described in the formal description contained within the scoping documents. The sufficiency of the evidence with respect to the alternatives to the project considered by the Board is a matter that falls within the

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[5] This is consistent with the Board's prior decisions, for example, see Sable, *supra* note 4 at 87 ff., and Alliance, *supra* note 4, at 17, as supported by subsequent case law, see *Sharp*, *infra* note 7.

[6] This is consistent with the Board's prior decisions, see for example, GSX, *supra* note 4, at 15

[7] See *Sharp* v. *Canada (Transportation Agency)*, [1999] F.C.J. No. 948 (FCA), in which the Court found that it was within the discretion of the Agency to decide the nature and extent of its consideration of need and alternatives taking into consideration the environmental acceptability of the proposed project. The Court also said that business or commercial needs are a legitimate basis for rejecting alternatives.

judgement of the Board, and may vary with respect to the application before it.

As noted during the oral portion of this hearing[8], consideration of alternatives to the Brunswick Project raised in the context of the CEA Act should not be used to delve into a detailed economic analysis of the benefits and burdens of that alternative. For example, consideration of alternatives to the Brunswick Pipeline Project under the CEA Act does not require an analysis of what the tolls might be on a potential alternative to the Project in comparison to the tolls on the Brunswick Pipeline[9] nor an analysis of the "long-term effects of avoiding the toll on the Maritimes and Northeast Pipelines system."[10] That level of detailed analysis would greatly expand the scope of the CEA Act EA analysis without adding sufficient probative value to the decision the Board has to make on the environmental effects of the Brunswick Project, and is not required for this EA Report.

In applying the relevant case law[11] and the OPS, the Board finds that both the need for this Project and the purpose of this Project are to be considered in order to provide a basis for the consideration of alternatives to the Project in this EA Report. The Board also notes that gathering information on the need for the Project may also be of assistance if a decision must ultimately be made under the CEA Act whether, despite significant environmental effects, the Project is otherwise justified.

Furthermore, the quantity and detail of the evidence required to allow the Board, as an RA, to carry out its consideration of these factors, and the degree of scrutiny to undertake this task, will vary with the seriousness of the environmental effects of the proposed project. It is within the Board's discretion to determine the adequacy of the evidence provided for both these factors based on the circumstances of the application being considered.

In this hearing, the proponent is EBPC. Accordingly, the need for and the purpose of the Project, for the purpose of the CEA Act EA, are to be established from the perspective of EBPC.

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[8] National Energy Board GH-1-2006, Emera Brunswick Pipeline Company Ltd., Transcripts, 17 November 2006, Vol. 11, para. 17126 – 17136; attached as Appendix 5 to this Report.

[9] It appears that Anadarko is essentially arguing that the Board is required to consider an expansion of the existing Maritimes and Northeast pipeline and the relative economic costs and toll implications of such an expansion as part of the Board's consideration of *alternatives to* the Brunswick Pipeline project. (Anadarko Final Argument, 15 December 2006, pp. 4-13).

[10] Friends of Rockwood Park Final Argument, 15 December 2006, Part 1, p. 4.

[11] For example, *Sharp, supra* note 7

The Board accepts that the need for and the purpose of the Project, from the perspective of EBPC, has been sufficiently defined by EBPC, that is, to provide the necessary new infrastructure to transport natural gas from the Canaport™ LNG Terminal to markets in Maritimes Canada and the Northeastern US. The evidence further indicates that EBPC's customer, Repsol, is seeking a stand-alone pipeline from the Canaport™ LNG Terminal to the interconnect with the M&NP US system. The Board does not find it appropriate in conducting its EA of the Project under the CEA Act, and on the basis of the record and the facts of this case, to redefine the purpose of or need for the Project from that set out by EBPC. The purpose of and need for the Project are not so narrowly defined as to preclude the reasonable assessment of alternatives to the Project, nor is the rationale or the goal to be achieved by the Project unclear.

As previously mentioned, under the Board's mandate under the NEB Act, the purpose of and need for the Project will receive further consideration in determining whether the Project is in the present and future public convenience and necessity.

Accordingly, the alternatives to the Project to be considered in this EA prepared in accordance with the CEA Act are to be informed by the purpose of and need for the Project.

During the oral portion of the hearing, the Board provided a ruling related to alternatives to the Project. This ruling is attached as Appendix 5 (Questioning about Alternatives to the Project). All rulings are available on the Board's website. Given the context for its consideration of this and other factors under the CEA Act, contained above, the Board concludes that it has sufficient information about the alternatives to the Project and EBPC's analysis of those alternatives for the purpose of this EA under the CEA Act.

The Board finds that the alternatives of transporting gas by ship, truck, or train are not as reliable, environmentally-safe or secure as transporting gas through an underground pipeline. It was clear on the evidence before the Board that the existing SJL could not currently transport the amount of gas required to be transmitted by this Project. It is notable as well that the owner of the SJL, M&NP Canada, while participating in this proceeding, did not take the position that using the SJL would be feasible, and, in fact, argued the opposite position in its 6 September 2006 correspondence to the Board, based on the evidence provided by EBPC.

In the Board's view, the alternatives to the Project raised by Anadarko, FORP and the Eldridge-Thomases are not appropriately considered to be "alternatives to" the Project under the CEA Act, because they do not serve the same purpose of and need for the Project, as set out by EBPC. For example, an expansion of the M&NP Canada System would not result in a separately-tolled, stand-alone pipeline from the Canaport™ LNG Terminal to the interconnect to the M&NP US System at the Canada-US border. Even if they could be considered "alternatives to" the Project, these options have been rejected for commercial and business reasons by the Proponent and its shipper, and this rationale for rejection under the CEA Act is supported in the jurisprudence.[12]

The Board finds that the alternatives to the Project considered by EBPC that would meet the purpose of and need for the Project from the Proponent's perspective, were reasonably concluded by EBPC to not be technically and economically feasible, and therefore are not viable alternatives to the Project. Furthermore, the information provided during the hearing supports the selection of the Project. Finally, taking into consideration its ultimate conclusion that the Project is not likely to cause significant adverse environmental effects, the Board need not undertake a more detailed assessment of the alternatives to the Project under the CEA Act.

Notwithstanding the Board's finding that the "alternatives to" the Project discussed above are either inappropriate "alternatives to" the Project under the CEA Act, or were reasonably rejected by EBPC, the Board notes that further consideration of the proposals by Anadarko, FORP, and the Eldridge-Thomases may be included as part of the Board's deliberations on whether the Project is in the present and future public convenience and necessity in the Board's reasons for decision under the NEB Act.

3.3 Alternative Means

3.3.1 Background

Pursuant to paragraph 16(1)(d) of the CEA Act, an RA must consider alternative means of carrying out the project.

The OPS defines "alternative means" as the various ways that are technically and economically feasible that the project can be implemented or carried out. This could include for example, alternative locations, routes and methods of development, implementation and mitigation.

The "alternative means" may include different routes for the project to follow between the terminal points selected, or different ways of carrying out the work required to undertake the project that are both "technically and economically feasible." The RA must also consider the environmental effects of the alternative means; however, there are no legislated requirements regarding the quantity or level of detail of information that a proponent must provide and the RA must consider in order to satisfy this factor.

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[12] See *Sharp, supra* note 7.

3.3.2 Views of EBPC

Consideration of Alternate Corridors

EBPC noted that, in general, the corridor alternatives identified for evaluation represented the routes from the pipeline origin to its terminal point, avoiding known concentrations of environmental constraints, and following existing RoWs wherever practicable. The preferred corridor includes both an urban and rural component.

Four main urban corridor alternatives were identified and evaluated to determine the preferred corridor from the east side of Saint John, where the Canaport™ LNG Terminal is located, to the west side of Saint John. One of the urban corridor alternatives considered consisted of a marine crossing of the Saint John Harbour. Four corridor sub-alternatives through the City were identified in an attempt to avoid built-up areas and allow the crossing of the Saint John River without undue difficulty.

Three main rural corridor alternatives were identified from the west side of Saint John to the international border near St. Stephen, New Brunswick.

See Figure 2 for the various alternative corridors considered, and Figure 3 more specifically for the urban alternative corridors.

Selection Process

According to EBPC, a multi-disciplined project team, assisted by various consultants, was initially assembled to evaluate corridor alternatives and select a preferred corridor for the Project. Collective experiences of the team included: recent knowledge of NEB-regulated corridor selection processes, including the processes applied in relation to the M&NP Mainline and SJL; environmental permitting; RoW land acquisition; and extensive east coast urban, rural and offshore pipeline construction experience.

Selection Criteria

EBPC submitted that the preferred corridor was selected on the basis of:

- safety;
- constructability;
- minimizing project cost;
- impacts to project schedule; and
- environmental constraints and minimizing disturbance through the use of existing corridors where practicable.

EBPC indicated that it had a team of experts evaluate and compare the corridors, and determine what was the preferred one, taking into account all of those criteria. The corridor selection process involved a balancing of all of the criteria in determining the preferred corridor.

The technical studies used by EBPC to support the evaluation of alternative corridors included:

- a preliminary evaluation of interferences presented by underground infrastructure and related constructability issues (Godfrey 2005);
- a technical feasibility study of potential marine crossing alternatives (PCS 2005); and
- a technical feasibility study of HDDs across major watercourses and water bodies (AK Energy 2005).

In support of its application, EBPC also submitted a quantitative risk analysis of the Project based on EBPC's preferred route (Bercha International Inc., 2005).

Consultation/Rockwood Park Variants

EBPC stated that it or its predecessor, M&NP, held discussions with various stakeholder groups and regulatory agencies to help identify potential corridor alternatives and to obtain feedback on the evaluation criteria for selecting a preferred corridor. Several challenges with the preliminary preferred corridor were identified during the public and stakeholder consultations. Specifically, some members of the public were opposed to a pipeline corridor along an existing power transmission line RoW in Rockwood Park. In response to these concerns, the variants to the preliminary preferred corridor were identified to avoid the Park. The two variants, one north and one south of Rockwood Park, were assessed in the environmental assessment for the Project. Refer to Figure 4 for an illustration of the two variants around Rockwood Park.

EBPC indicated that the proposed corridor through Rockwood Park is preferred because it follows an existing utility corridor through the Park, avoids impacts to residences, does not alter the existing land use and is the shortest option that would result in the least temporary construction impact compared to the two variants. However, EBPC submitted that each of the two variants around Rockwood Park is acceptable based on a preliminary review.

Preferred Corridor Selected

EBPC submitted that only one corridor and its accompanying variants through Saint John were found to be technically and economically feasible. This route, the Pleasant Point sub-alternative and its variants, is EBPC's preferred corridor in the urban portion of the route. The Pleasant Point sub-alternative passes through the City of Saint John and parallels a transmission line through Rockwood Park. Refer to Figure 1 for an illustration of the preferred corridor.

A route known as the International Power Line (IPL) alternative was selected as the best alternative for the rural portion of the route for environmental, technical and economic reasons. The IPL alternative follows the SJL RoW until the planned New Brunswick Power (NB Power) IPL RoW is intersected, then parallels the IPL (to the extent practicable), leaving the IPL RoW just before the St. Croix River, and crossing this river immediately adjacent to the existing M&NP Mainline. The other two rural alternatives were more costly and presented additional technical challenges, such as a potentially high risk HDD watercourse crossing. The additional environmental effects of these two alternatives and a combination of technical risk and/or increased cost resulted in their rejection.

Together, the Pleasant Point sub-alternative (and its variants) and the IPL alternative, including the portion which parallels the SJL, make up EBPC's preferred corridor for the Project.

EBPC noted that the rural section of its preferred corridor generally passes through undeveloped forested lands and, for the most part, abuts existing or proposed pipelines, roadways or power lines. Of the entire 145 km length of the preferred corridor, approximately 95 km follows, and includes within its boundaries, existing or planned RoWs, including power lines, highways and roads.

EBPC indicated that discussions with NB Power and engineering studies are underway to determine if the pipeline can be safely located approximately 13 m from the closest power line conductor. Among other things, consideration is being given to the height of construction equipment and spoil piles, ground clearance below the conductors under different operating and climatic conditions, the effects of inducted voltage on the pipeline, the effects of blasting on the tower structures, and operational requirements of NB Power. The final proposed location of the pipeline would also be based on environmental and topographical considerations. EBPC would strive to maximize the amount of easement overlap.

The delineation of the 30 m-wide pipeline RoW within the preferred corridor would be completed following regulatory approval by the NEB, if approval is granted. This delineation would be based on further site-specific constraint mapping, field investigations, and information received from the public, landowners, other interested parties, and government agencies. Urban corridors defined by EBPC for this Project were typically 100 m in width, except in specific areas where they were widened to permit the future consideration of detailed routing options. Segments of the preferred corridor in rural areas that followed the existing SJL were 200 m wide and segments of the preferred corridor in rural areas that followed the existing IPL were 500 m wide.

Marine Crossing

EBPC submitted that a marine crossing of Saint John Harbour was considered thoroughly but rejected as it would not be practical due to the higher safety, technical, cost, schedule, and environmental risks as compared to the preferred corridor. The key difficulties identified with a corridor that includes a marine crossing of the harbour compared to an on-land route included:

- greater safety risks associated with a marine crossing, including occupational safety risks for divers and other marine construction workers on barges and on other vessels;
- greater construction risks associated with a marine crossing, such as the technical challenge of the bottom-lay portion of the marine crossing and HDD installations at the entry and exit to the water due to the tidal changes;
- the environmental risk and potential impacts of a marine crossing to marine fish habitat and shoreline habitat, including the Saints Rest Marsh area, particularly if HDD installations were not successful;
- the cost estimate for a pipeline constructed in a corridor that included the marine crossing used in EBPC's application was 85% greater than the capital cost for the preferred corridor; and

- very high risk of delays to the Project for completing a marine crossing in winter months.

EBPC submitted that pipeline operation risks and commercial risks were additional issues related to a marine crossing.

Other Alternative Means

In addition to considering various corridors, the Proponent considered the use of nominal pipe size (NPS) 24 inch, NPS 30 inch and NPS 36 inch outside diameter pipe. EBPC submitted that the NPS 24 and NPS 36 options were eliminated after considering the necessary contract flow rate and maximum operating pressure as well as the associated costs.

3.3.3 Views of the Parties

FORP submitted an analysis prepared by Accufacts Inc. on the application as it pertained to two major route options affecting the City of Saint John, NB. The analysis suggested that the application was seriously incomplete in at least two areas:

1. the declaration dismissing the marine route option that would essentially bypass the City of Saint John as "not feasible" was not adequately supported, raising significant questions as to the claimed difficulty, cost, or scheduling impact of this option; and
2. the Bercha quantitative risk assessment was missing critical information to support or justify the risk transects determined for the on-land route through the City of Saint John.

FORP submitted that the application appears to be misrepresenting or over-estimating the difficulties, costs, or risks associated with the harbour crossing, while understating the risks associated with an on-land route through the City. In addition, the Saint John Harbour marine crossing options did not appear to have been thoroughly or properly evaluated or documented as a *bona fide* pipeline route. FORP argued that additional information was warranted to permit an informed and proper decision concerning a prudent Brunswick Pipeline route selection.

FORP opposed EBPC's plan to construct the Project through Rockwood Park and the City of Saint John, and instead advocated a marine route across the outer harbour of Saint John, a safe route away from the City and its population. FORP submitted an affidavit indicating that FORP collected signed petitions with approximately 15,269 signatures requesting that the NEB only permit an undersea route for any approved natural gas pipeline.

FORP and other Intervenors argued that EBPC failed to properly evaluate the alternative means to carry out the Project and failed to carry out its obligations under Section 16 of the CEA Act.

Mr. Horst Sauerteig submitted that a submarine pipeline circumventing the City is safer for its residents and for the environment, and could be constructed safely by an experienced marine contractor at a cost comparable with EBPC's estimate of a pipeline through the City of Saint John. Mr. Sauerteig proposed a marine pipeline route alternative to the marine crossing considered by EBPC. He disputed the estimated cost of the marine crossing put forward by EBPC, and estimated a much lower cost for EBPC's marine crossing than did EBPC. Mr. Sauerteig submitted that EBPC's preferred corridor through the City of Saint John is not in the best interest of its citizens, and that many of the burdens of EBPC's preferred corridor to the citizens can be eliminated by adopting his proposed marine pipeline alternative. Mr. Sauerteig argued that EBPC failed to investigate in a professional manner all "alternative means of carrying out the project."

EC submitted that planning for the Project should consider the potential for Project activities to result in the disposal of materials into the marine environment and the associated need for a Disposal at Sea (DAS) permit under CEPA 1999. The three scenarios described in EBPC's ESEA that may include activities subject to the DAS provisions of CEPA 1999 include a pipeline crossing of Saint John Harbour, open cuts of the Saint John River, and disposal of sulphide-bearing materials at sea. EC recommended that activities that may be pursued on a contingency basis and could require a DAS permit be described and assessed in sufficient detail to support a potential DAS permit application.

Many of the letters of comment received and oral statements made, as well as the evidence submitted by several Intervenors expressed concern over and opposition to a pipeline route through the City of Saint John, and many suggested a strong preference for a marine crossing.

3.3.4 EBPC Response to Intervenors

In response to evidence from Intervenors disputing estimated costs for the marine crossing, EBPC submitted that its revised estimated costs for the marine crossing had increased since its initial estimation. The revised estimated cost for the marine portion reflected order of magnitude increases based on recent quotes received for similar marine projects.

EBPC indicated that the success of the Canaport™ LNG Terminal is very dependent upon the commercial arrangements between Repsol Canada and EBPC, and achieving a timely in-service date in accordance with the current land route construction schedule for completion of the Brunswick Pipeline. A conclusion was reached early on that, considering the likely costs and scheduling delays, a marine crossing would not be feasible. As a result, the detailed engineering and environmental studies with respect to a marine crossing were not undertaken.

EBPC submitted that it did look at the alternative marine route proposed by Mr. Sauerteig. EBPC indicated that the information Mr. Sauerteig provided would not result in a materially different result to EBPC's analysis of a marine route in general. EBPC still preferred its preferred corridor for the Project when compared to Mr. Sauerteig's alternative.

EBPC submitted that the construction and operation of the on-shore pipeline in the preferred corridor described in the application is environmentally-acceptable, economical, safe and efficient as experience across North America has demonstrated over the years. Both EBPC and Repsol have concluded that a marine crossing is not feasible. EBPC indicated that the Brunswick Pipeline will not be built across Saint John Harbour.

In response to claims that EBPC has not adequately considered the alternative means of a marine crossing, EBPC argued that the Board has been provided with an abundance of evidence regarding the feasibility of a marine crossing. EBPC:

- has provided feasibility studies that considered two marine corridors;

- answered extensive interrogatories with respect to the marine alternatives and its feasibility analysis;
- evaluated the Intervenors' evidence on the marine alternatives and made related information requests;
- responded to the Intervenor evidence with respect to the marine crossings with further reply evidence; and,
- made its marine experts available for cross-examination for approximately seven days.

In its response to EC's concerns about the potential for a DAS permit, EBPC indicated that at the time the ESEA was submitted, no disposal at sea of sulphide-bearing rock was being considered for the Project. EBPC also noted that during the construction of the SJL, most sulphide-bearing rock encountered was relatively low in reactivity and a combination of blending into the RoW grade materials and/or adding limestone was sufficient mitigation.

EBPC proposed an HDD to cross the Saint John River as part of the Project, and its ESEA was based on that crossing method. EBPC indicated that it would prepare a contingency plan in the event that the HDD was not feasible.

EBPC further indicated that should it become apparent that a DAS permit may be required for the Project, the appropriate studies and plans would be discussed with EC and undertaken for this activity.

Views of the Board

During the hearing, a number of parties raised concerns with respect to the preferred corridor, and suggested that alternative means, including alternative corridors, were not sufficiently examined by EBPC. The Board provided a ruling related to alternative means to provide some guidance to parties. This ruling is attached as Appendix 6. Additional guidance related to the Board's consideration of alternative means is contained below.

In relation to the Board's consideration of "alternative means", there is no obligation to select the alternative with the least environmental impact. The approach of the CEA Act is to require a finding that the alternative *chosen* not be likely to cause significant adverse environmental effects.[13]

In the Board's view, "alternative means" of carrying out the Project are methods which are technically and economically feasible and include those means that are within the scope and control of EBPC.[14] The consideration of "alternative means" does not involve a consideration of alternative means that would involve different end points for the pipeline, nor does it necessarily require that all possible reasonable alternative means must be examined. Furthermore, in the absence of a legislated requirement as to the quantity or detail of the evidence that must be considered, the extent to which the Applicant has provided information on alternative means, the adequacy of information provided for the Board's consideration and the Board's determination as to whether consideration of this factor under the CEA Act has been fulfilled is a question of judgment.[15]

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[13] *Inverhuron & District Ratepayers' Assn. v. Canada (Minister of the Environment)* [2001] F.C.J. No. 1008 (FCA) at para. 50; application for leave to appeal to SCC dismissed without reasons [2001] SCCA No. 463.

[14] See also Sable, *supra* note 4, at 87; Alliance, *supra* note 4, at 31; GSX, *supra* note 4, at 21.

The Board finds that EBPC provided sufficient evidence regarding its consideration of a marine crossing of the Saint John Harbour, and that this evidence underwent broad questioning by parties to the hearing. EBPC's evidence was supported by credible expert witnesses and EBPC's conclusions with respect to the feasibility of a marine crossing were reasonable, based on the evidence adduced.

Although EBPC was not required to consider or provide information on *all* possible alternative means, the Board finds that, in any event, EBPC sufficiently examined and provided an adequate level of information in response to those alternative means proposed by Intervenors, such as Mr. Sauerteig's proposed alternative marine route, to supplement the information provided on the record by other parties and to allow for sufficient consideration of these alternative means, their technical and economical feasibility, and their environmental effects.

Evidence was also provided with respect to the other on-land corridors considered by EBPC in this proceeding, as described in section 3.3.2 above. These on-land alternative means were also extensively explored by parties in the proceeding. EBPC's conclusion with respect to the selection of an on-land corridor were reasonable, based on the evidence adduced.

Further, EBPC provided evidence that it considered various sizes of pipe and the feasibility of using HDD at several watercourses. The Board notes that this evidence was only briefly questioned, if at all, or argued upon by parties.

The Board concludes that EBPC has provided adequate information on alternative corridors and construction methods that are technically and economically feasible for the Board to consider these alternative means and their environmental effects. In the Board's view, the rationale provided by EBPC for rejecting the alternative means it considered, as well as the Intervenors' proposed alternative means, is reasonably founded in the evidence, and supports, among other things, the selection of the preferred corridor, construction methods and size of pipe.

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[15] *Alberta Wilderness Assn. v. Express Pipelines Ltd.*,[1996] F.C.J. No. 1016 (FCA).

Further consideration of the evidence may be required by the Board in order to fulfill its mandate under the NEB Act, and will form part of the content of separate Reasons for Decision.

The Board notes EC's recommendation that activities that may be pursued on a contingency basis and that could require a DAS permit be described and assessed in sufficient detail to support a potential DAS permit application. However, EBPC has indicated that it will not pursue a pipeline crossing of the Saint John Harbour. An open cut of the Saint John River was not considered as part of the environmental assessment for the Project. EBPC has indicated that an open cut of the Saint John River would only be pursued as a contingency, and that it would prepare an environmental assessment of the open cut.

If the Project were to receive regulatory approval, the Board would recommend a condition be imposed to require that EBPC construct the crossing(s) of the Saint John River using the HDD method or, if this is not feasible, apply to the Board for approval of an alternative crossing technique, and include an EA of the proposed alternative with its application. Therefore, the Board has included a recommendation to this effect in section 9.2 as recommendation I.

The Board expects that EBPC would include sufficient detail to support a potential DAS permit application as part of the environmental assessment of the proposed alternative crossing of the Saint John River.

The remainder of this Report focuses on the Project as proposed by EBPC and described in section 2.0 (Project Description).

4.0 DESCRIPTION OF THE ENVIRONMENT

The following descriptions of the environmental and socio-economic settings are based on the evidence submitted by EBPC and focus on the preferred corridor as proposed by EBPC. Any comments provided by interested parties with respect to the environmental and socio-economic elements below are addressed in sections 5.5 and 7.0, and Appendix 1 of this Report.

4.1 Environmental Setting

Physical Environment

- Topography varies from gently undulating/level to hummocky/rolling with more than 90% of the urban and rural corridor having a slope of less than 10%.
- Approximately 64% (22.8 km) of the urban section and approximately 67% (74.5 km) of the rural portion of the preferred corridor crosses through potential sulphide-bearing or acid-generating rock that contain various sulphide minerals.
- Five earthquakes with a magnitude greater than 2.6 on the Richter scale have occurred in the Bay of Fundy in the last 30 years.

- The Bay of Fundy moderates the local air temperature and stabilizes the flow of large air masses. This stability can greatly influence the dispersion of exhaust plumes from sources located on the coast of the Bay of Fundy.

Water Resources

- Two Watershed Protection Areas have been identified within the preferred corridor: Dennis Stream Watershed near St. Stephen and the Spruce Lake Watershed, west of Saint John.
- The boundary of a third Watershed Protection Area, the East and West Musquash Watershed, is within 50 m of the preferred corridor.
- The preferred corridor intersects valleys and hillsides in several locations where springs may occur.
- Records for 19 wells within 500 m of the preferred corridor were available from a provincial database.
- Aerial photography suggests that there may be more than 105 domestic wells within 500 m of the preferred corridor that have not been included in the provincial database.
- A total of 123 watercourses or water bodies are within or adjacent to the preferred corridor.

Fish and Fish Habitat

- Three species of fish considered either Species at Risk pursuant to the *Species at Risk Act* (SARA) or Species of Conservation Concern occur within the assessment area[16]. These include anadromous Atlantic Salmon, listed as "May be at Risk" by New Brunswick Department of Natural Resources (NBDNR), striped bass (*Morone saxatilis*), listed as "May be at Risk" by NBDNR and also "Threatened" by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and shortnose sturgeon (*Acipenser brevirostrum*), listed as a "Species of Special Concern" under SARA.
- In NB, the Inner Bay of Fundy Atlantic salmon (*Salmo salar*) is listed as "Endangered" under SARA and the Lake Utopia dwarf smelt (*Osmerus sp.*) is listed as "Threatened" under SARA. Neither of these species is known to exist within watercourses crossed by the preferred corridor.
- Recreational fish species in the preferred corridor, as determined by DFO, include various salmonids, smallmouth bass and American eel and gaspereau (alewife); striped bass are also commonly fished in the Saint John River.
- Brook trout were determined to be the dominant recreational fish species in the preferred corridor.

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[16] The assessment area for fish and fish habitat included the watercourses that may be crossed by the preferred corridor or Rockwood Park variants and where activities associated with the Project could potentially result in environmental effects on fish, fish habitat, and surface water quality.

Vegetation

- The southern-most areas of the preferred corridor may support tolerant hardwoods such as sugar maple and yellow birch, but are dominated by red maple, white birch, balsam fir and white spruce.
- Where the preferred corridor parallels the NB Power IPL RoW, tolerant hardwoods such as sugar maple and hemlock are able to persist; butternut (a federal Species at Risk) are present but are mostly restricted to the Saint John River valley; the more common quaking aspen are also characteristic in regenerating areas that have been disturbed by deforestation or fire.
- Invasive vascular plants that can be expected within the study area include purple loosestrife, Eurasian watermilfoil, glossy buckthorn and reed canary grass.
- A total of 14 plants of conservation concern were encountered within approximately 50 m of the preferred corridor during field surveys.
- A total of 80 wetlands were identified during the desktop study and field surveys as occurring within the preferred corridor, with a total area estimated to be 800 hectares (ha).
- The preferred corridor intersects with, or is near, three vegetation-based environmentally significant areas and runs through the southern edge of the Loch Alva Protected Area.

Wildlife and Wildlife Habitat

- The eastern NB population of cougar is listed as "Endangered" under the NB *Endangered Species Act* (NB ESA) and the Canada lynx is listed as "Regionally Endangered" under the NB ESA. Both lynx and cougar tend to be wide-ranging and suitable habitat for both species is likely distributed throughout the Project area; however, the preferred corridor is not known to represent important limiting habitat for either species.
- The Gaspé shrew is listed as "Special Concern" on Schedule 3 of SARA; however, based on its restricted range, it is unlikely to inhabit areas in the preferred corridor.
- Other mammal species that have been assessed to be "Sensitive" by NBDNR include the eastern pipistrelle, little brown bat and northern long-eared bat; however, the preferred habitats of these species are avoided by the preferred corridor.
- The long-tailed shrew is considered "May be at Risk" by NBDNR but are unlikely to inhabit areas of the preferred corridor based on their habitat preferences.
- Eight species of birds with the potential to be in the area of the Project are listed on Schedule 1 of SARA, including Piping Plover, Eskimo Curlew and Roseate Tern as "Endangered"; Least Bittern and Peregrine Falcon as "Threatened" and Harlequin Duck, Yellow Rail and the eastern population of Barrow's Goldeneye as "Special Concern"; however, it is not likely that any of these species inhabit the preferred corridor given their known ranges and preferred habitats.
- Bald Eagle is considered "Regionally Endangered" under NB ESA, and while there were no nests along the preferred corridor, there was one Bald Eagle recorded during the field surveys.

- Red-shouldered Hawk, Short-eared Owl and Bicknell's Thrush are listed as "Special Concern" on Schedule 3 of SARA; there is suitable habitat within the vicinity of the preferred corridor for both the Red-shouldered Hawk and Short-eared Owl, and although the preferred breeding habitat for Bicknell's Thrush is not common in this area, there was one recorded during bird surveys.
- Wood turtle is listed as "Special Concern" on Schedule 3 of SARA and were observed at Black Brook and Dennis Stream during surveys in August 2001 for the NB Power IPL.
- Dusky salamander is considered "Sensitive" by NBDNR, a database search of the area within 5 km of the preferred corridor returned three records for dusky salamander.
- Maritime ringlet butterfly is listed as "Endangered" on Schedule 1 of SARA but as they are only known to occur near the City of Bathurst, this species is not likely to occur along the preferred corridor.
- Monarch butterfly is listed as "Special Concern" on Schedule 1 of SARA, a database search of the preferred corridor and the surrounding 5 km returned two records for monarch butterfly.
- In the Project area, the most limiting mammal habitat is wintering areas for white-tailed deer and moose; the preferred corridor traverses nine deer wintering areas.
- An area designated as mature coniferous forest habitat intersects the preferred corridor; total area is approximately 690 ha, of which approximately 290 ha fall within the preferred corridor.
- Five wildlife-based environmentally significant areas have been identified in the vicinity of the preferred corridor and only the Utopia Wildlife Refuge intersects the preferred corridor.

Atmospheric Environment

- Southern NB has a relatively heavy industrial base that includes various commercial and industrial facilities, which contribute to sources of air contaminants.
- Data for conventional air contaminants for selected industrial facilities in southern NB (maintained by NBDOE) show a slightly increasing trend; however, sulphur dioxide emissions appear to be following a downward trend (data is from 1997-2003).
- Annual average values for nitrogen dioxide for all sites monitored in Saint John ranged from 10-30 $\mu g/m^3$, which were well below the ambient annual average standard of 100 $\mu g/m^3$.
- The 1-hour and 24-hour ambient sulphur dioxide standard (450 and 150 $\mu g/m^3$ respectively) were exceeded occasionally during 2003 at several monitoring stations in and around the Saint John area.
- No exceedances of the California/Greater Vancouver Regional District 24-hour standard of 50 $\mu g/m^3$ of particulate matter less than 10 microns were recorded at any of the monitoring sites in the Saint John network for 2002-2003.

- Particulate matter less than 2.5 microns monitored during the period of 2000-2003 is in compliance with the Canada-Wide Standard (30 μg/m^3 as a 24-hour average over 3 years).
- During 2002 and 2003, ground level ozone concentrations (monitored at 4 locations in the Saint John network) did not exceed the 1-hour National Ambient Air Quality Objective (160 μg/m^3 or 80ppb).
- There were a total of 5 hours during 2003 where the Canada-Wide Standard for 8-hour average ground level ozone (130 μg/m^3) was exceeded.
- Peak hourly values of carbon monoxide, for sites monitored from 1996-2003, were below the applicable standard of 35,000 in 2003. There were no exceedances of the 8-hour standard (15 000 μg/m^3 in 2003).

Rockwood Park

- In Rockwood Park, the preferred corridor for the Project follows an existing power transmission line RoW which spans a distance of 2.4 km.
- Within the Park, the A-frame building, horse barns, and interpretive centre depend on wells for water supply.
- Potential for contaminated soils exist within the preferred corridor of Rockwood Park.
- The Project potentially crosses at least six watercourses that may be fish-bearing.
- No known fish Species at Risk exist in watercourses crossed in Rockwood Park.
- Yellow Slipper, a vascular plant Species of Conservation Concern, was found at the edge of the preferred corridor, and would not be affected by the Project.
- There are three wetlands identified in the Park.
- There are a number of caves in Rockwood Park; however, these are avoided by the preferred corridor. Caves within the Park would not be affected by activities related to the Project.
- White-tailed deer are known to make use of corridors and trails such as power line RoWs (e.g., in Rockwood Park), pipeline RoWs (e.g., SJL) and abandoned railroad tracks. Deer are relatively abundant in southern NB and are generally not limited by habitat.
- No deer wintering areas were identified in Rockwood Park.
- No wildlife Species of Conservation Concern or habitat for such species has been noted within the proposed corridor for the Park.

4.2 Socio-Economic Setting

Aboriginal Interests

- There are 15 First Nation communities in the NB[17]. These communities are made up of two separate, although closely related, Nations: the Maliseet and the Mi'kmaq.
- The Project falls within the traditional territory of the Maliseet, with the closest community, Oromocto First Nation, approximately 65 km away from the preferred corridor. All of the Mi'kmaq communities are located over 100 km from the assessment area, with the furthest being located approximately 300 km away.
- As the Project would parallel, to the extent practicable, the existing NB Power IPL and SJL RoWs, the Traditional Ecological Knowledge (TEK) information gathered for those projects was used for EBPC's ESEA in addition to information gathered through open houses held at each of the 15 Aboriginal communities.
- Concerns raised in past studies for the SJL included disturbance to: traditional hunting, fishing and gathering areas; burial and/or ceremonial sites; and unidentified archaeological sites.
- Current consultation efforts identified similar issues, including a general concern for Aboriginal sacred lands and for historical Aboriginal settlements, although no specific areas have been identified.

Land and Resource Use

- The Project would pass through one incorporated municipality, the City of Saint John. Outside of Saint John, the pipeline extends from Lorneville to the international border at the St. Croix River near St. Stephen.
- The preferred corridor is set in both an urban and rural environment and passes through or near existing/proposed residential subdivisions, Rockwood Park in the north end of Saint John, the environmentally significant areas of Musquash Harbour, Saints Rest Marsh, and the extreme southern portion of the protected Spruce Lake Watershed.

Urban Setting

- Saint John Census Metropolitan Area is NB's largest urban centre, with a population of approximately 140,000.
- Part of the Project is located within the urban setting of Saint John (approximately 35 km), including areas with substantial underground infrastructure, complex road networks, heavy industry and residences.
- Several large industries are located near the preferred corridor, including a port, an oil refinery, a pulp and paper plant, transportation infrastructure (e.g., roads and railways),

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[17] The six Maliseet First Nation communities in New Brunswick are Madawaska, Tobique, Woodstock, Kingsclear, St. Mary's and Oromocto. The nine Mi'kmaq communities in New Brunswick are Eel River Bar, Pabineau, Burnt Church, Metepenagiag, Eel Ground, Big Cove, Indian Island, Buctouche, and Fort Folly.

and numerous small businesses and other commercial properties that support the industry base.

- The urban portion of the preferred corridor parallels existing utility RoWs, to the extent practicable, while generally avoiding most of the recreational areas and attractions located in Rockwood Park.
- Rockwood Park is a popular destination for Saint John residents and visitors. In various seasons, Rockwood Park offers the following attractions: Kiwanis Playpark at Fisher Lakes; Rockwood Park Municipal Golf Course & Aquatic Driving Range; Rockwood Park Campground; Cherry Brook Zoo & Vanished Kingdom Park; beaches at Fisher Lakes and Lily Lake; hiking, biking, cross-country skiing, and running trails; picnic sites at Fisher Lakes and throughout the wilderness zone of the Park; Rockwood Stables & Turn of the Century Trolleys; and horseback riding.
- Approximately one third of the urban portion of the preferred corridor is located within close proximity of residential homes. These areas include Champlain Heights, Lancaster, Spar Cove Road, Milford, and Millidgeville. New subdivisions are currently being developed or are planned within the urban portion of the preferred corridor.

Rural Setting

- The remainder of the Project is within the rural setting of southwestern NB (approximately 110 km); the preferred corridor travels through both forested and agricultural areas, and intersects the protected Dennis Stream Watershed, Route 1 and a number of secondary highways.
- The rural portion of the preferred corridor is located adjacent to existing RoWs, to the extent practicable, in an effort to minimize land use conflicts for the Project.
- Primarily crossing through woodland, the preferred corridor does pass through intermittent residential and industrial land use and cross various roads and utility RoWs.
- Numerous trails used by all-terrain vehicle (ATV) operators and seasonal hunters occur in the rural portion of the preferred route, although no properties are specifically set aside for recreational purposes.
- Agricultural lands occur within the preferred corridor, including two blueberry farms in addition to the more traditional farms of hay and grains.

Infrastructure and Services

- The preferred corridor interacts with numerous water mains, as well as sanitary and storm sewers within Saint John.
- The preferred corridor intersects with the CN Rail line in two different locations.
- Three hospitals and other health and long-term/chronic care facilities (e.g., the Worker's Compensation Rehabilitation Centre) are located in Saint John. The largest of these units, the Saint John Regional Hospital, is a 700-bed acute care teaching hospital, and is accessed via either University Avenue or Sandy Point Road. It is NB's largest regional hospital and one of the largest in eastern Canada.

- Within the urban region of the preferred corridor, there are 33 establishments that provide overnight accommodation, 27 of which provide year-round lodging. Within the vicinity of the rural section of the preferred corridor, there are 54 places identified that provide overnight accommodation, 31 of which provide year-round lodging.
- Archaeological and Heritage Resources
- The preferred corridor was preliminarily divided into areas of low archaeological potential and moderate to high archaeological potential. Areas of moderate to high archaeological potential may include both pre-contact and historic period resources.
- Sites of high archaeological potential were identified, including along the shoreline of the Saint John River, on the Musquash River, at St. David Ridge, on the west side of Magaguadavic River and at most of the other watercourses crossed by the preferred corridor.
- Based on the history of the area, and the level of disturbance and studies from past projects, the archaeological potential for most of the preferred corridor was considered by EBPC to be low to moderate.

5.0 PUBLIC PARTICIPATION

5.1 Public Participation under the CEA Act

Public participation is a central element of the CEA Act. The importance and function of public participation is cited in both the preamble and purpose of the CEA Act:

> ...Whereas the Government of Canada is committed to facilitating public participation in the environmental assessment of projects to be carried out by or with the approval or assistance of the Government of Canada and providing access to the information on which those environmental assessments are based;...

and

> The purposes of this Act are...
>
> (d) to ensure that there be opportunities for timely and meaningful public participation throughout the environmental assessment process.

The intent of the CEA Act clearly supports the principle of early and meaningful public participation. The requirements of the CEA Act regarding public participation for panel reviews, for which the NEB public hearing process is a substitute for this Project, are as follows:

- every assessment by a review panel of a project shall include a consideration of... comments from the public... (paragraph 16(1)c of the CEA Act)
- a review panel shall: ensure that the information required for an assessment by a review panel is obtained and made available to the public (subsection 34(a) of the CEA Act); hold hearings in a manner that offers the public an opportunity to participate in the assessment (subsection 34(b) of the CEA Act); prepare a report setting out… a summary of any comments received from the public… (paragraph 34(c)ii of the CEA Act)

- a hearing by a review panel shall be public unless… (subsection 35(3) of the CEA Act)
- regarding public notice... the Minister shall make the report available to the public in any manner the Minister considers appropriate to facilitate public access to the report, and shall advise the public that the report is available (section 36 of the CEA Act).

5.2 Key Elements of Meaningful Public Participation

The public should be afforded an opportunity to provide their views to decision-makers, by participating in a meaningful public process, before decisions are made that affect their lives. For a public participation process to be meaningful, the CEA Agency recommends that it should exhibit all of the following elements:

- **Early notification** - Where notification is to be given, it needs to be done early enough to allow the public to have the opportunity to influence the planning of a project and its EA process before any irrevocable decisions are made.
- **Accessible information** - The RA should ensure that all participants are provided with the information they need to participate effectively on a timely basis. Consideration should be given to the appropriate language for this information and the need to use culturally-sensitive means of communication. Access to information should only be limited in accordance with the laws relating to access to information and privacy.
- **Shared knowledge** - A project should be developed on the basis of both technical and scientific knowledge, and community and Aboriginal traditional knowledge. Knowledge, concerns, values and viewpoints should be shared in an open, respectful and timely manner. This includes information on the potential consequences of a project. Any rights flowing from the ownership of information that participants may have need to be respected.
- **Sensitivity to community values** - Public participation processes need to be carried out in a manner that respects different community values and needs.
- **Reasonable timing** - A public participation process should provide the public with a fair and reasonable amount of time to evaluate the information presented and to respond to project proposals and to proposed decisions by proponents and RAs.
- **Appropriate levels of participation** - A public participation process should provide for levels of participation that are commensurate with the level of public interest.
- **Adaptive processes** - Public participation processes should be designed, implemented and revised as necessary to match the needs and circumstances of the project and to reflect the needs and expressed preferences of participants. This process may be iterative and dynamic in keeping with the reasonable expectations of participants.
- **Transparent results** - Public participation is based on the premise that the public's contribution will be considered in the decision-making process. A public participation process should, at its conclusion, provide information and a rationale on whether or how the public input affected the decision.

5.3 Engagement Activities by EBPC

EBPC submitted that it conducted an extensive consultation program, commencing in mid-2005. EBPC stated that its consultation efforts would not stop with the selection of the corridor or filing of the application, but that it would continue through the development of the detailed route within the preferred corridor, and the operations phase of the Project. The goals of the ESEA (including corridor selection) consultation program for the Project, as stated by EBPC, were to:

- identify stakeholders who have interests in the Project area and who could potentially be affected by the Project as soon as practicable in the planning phase of the Project;
- inform potential stakeholders throughout the various phases of the Project by sharing information on key project specifics in a clear and timely manner;
- create opportunities for meaningful input and advise stakeholders of their opportunities to communicate with EBPC or regulatory agencies if they so desire;
- understand and respond to any issues or concerns in an effort to ensure those issues or concerns are resolved or mitigated to the extent practicable; and
- identify communications with stakeholders leading up to the construction phase with a view to developing the long-term relationships required during project construction, and operation and maintenance.

Regulatory Consultation

EBPC indicated that a number of federal and provincial regulatory agency experts were contacted during the initial project scoping and corridor selection process to contribute expert advice, identify major constraints and important factors to be considered, or to express concerns regarding the Project with respect to their specific mandates. The corridor alternatives, constraints, and evaluation criteria were reviewed with local regulators, including DFO, EC, and NBDOE. Initial process discussions on the Project were also initiated with the NEB, the CEA Agency, and the NB Department of Energy. EBPC submitted that these consultations will continue throughout the regulatory approval process for the Project.

Public Consultation

According to EBPC, consultation with the public is required to fulfill EBPC's vision for consultation and to obtain regulatory approval for the Project. In the context of this Project, public consultation was directed at providing information to, and obtaining feedback from, interested parties, members of the public and potentially affected landowners on the selection of a preferred corridor and corridor alternatives. A variety of techniques were used to provide information to the public and to elicit feedback about the Project, including:

- open houses;
- questionnaires;
- newspaper advertisements;
- radio spots;
- a 1-800 phone number;

- an e-mail address;
- a Project website;
- newsletters, including a corridor map delivered to every mailing address in Saint John and the communities along the proposed corridor;
- site visits; and
- one-on-one and group meetings.

The geographic region included in the public consultation program covered the area between the Canaport™ LNG Terminal on Mispec Point in Saint John, NB to the international border near St. Stephen, NB. Communities within 10 km of the preliminary preferred corridor were solicited to participate in the open houses and public consultation program for the Project. EBPC stated that it attempted to ensure that all those located within the corridor were contacted directly, while those located beyond the corridor would receive general public notification, including open houses, mailings and other commonly-used means of notification. EBPC submitted that stakeholder groups with an interest in the Project were identified, and potentially affected landowners in the area were provided with information on the Project and encouraged to participate in the open houses.

Three open houses were held for the Project in late September 2005 in three NB communities along the preliminary preferred corridor. A fourth open house was held in Saint John in early December 2005 in response to requests for an additional consultation opportunity to focus on the urban section of the corridor, particularly Rockwood Park, and to provide the public with any new information on the preliminary preferred corridor obtained since the previous open houses. During the summer of 2006, three community meetings and walk-arounds were held (Milford, Millidgeville and Champlain Heights) at the request of the general public and their elected leaders.

Stakeholder Consultation

EBPC submitted that numerous meetings were held with key stakeholders (e.g., community groups, commercial landowners with large tracts of property that may be affected, or parties with an interest in lands that would be intersected by the pipeline corridor). These meetings are and would be continuing throughout the design and construction phases of the Project. The objective of these consultations was to provide a brief presentation on project activities and to solicit comments and concerns.

Aboriginal Consultation

According to EBPC, in order to meet the goals for Aboriginal consultation, an Aboriginal consultation plan and TEK study have been prepared and initiated for the Project. An Aboriginal consulting firm, Aboriginal Resources Consultants, was retained to facilitate the consultation process and the TEK plan. EBPC stated that the objectives of these efforts were:

- to respond to questions and concerns with regard to potential environmental effects to Aboriginal interests resulting from project activities;

- to inform the Aboriginal communities that the EA is one way to participate in the project approval process; and
- to gather information on the nature and extent of potential environmental effects on current land and resource use for traditional purposes.

The Aboriginal consultation plan was implemented to gather environmental and socio-economic information for use in the ESEA. The TEK study is ongoing and the information being gathered through this process will be used to enhance the detailed route process. As part of the Aboriginal consultation plan, open houses and direct consultation were identified as the primary forms of communication with First Nation communities and organizations. Through direct contact with the Chiefs, all 15 communities were given information about the Project and permission was requested to hold an open house in each of their communities. Of these, 13 agreed to allow the open houses. One community, Fort Folly, declined a session in their community (citing that any information would come from their Tribal council, the Union of New Brunswick Indians (UNBI)[18]) and another, Buctouche, requested only a presentation to its council.

The report on the Aboriginal consulting process submitted by EBPC contained a number of recommendations based on the outcomes from direct consultation with the community Chiefs, participants at the open houses, and the two representative organizations (MAWIW Council[19] and UNBI). These are reproduced below (Aboriginal Resource Consultants, 2006):

- Provide copies of the consultation process report to each of the 15 NB First Nation communities.
- Provide to each of the NB First Nations a copy of the final ESEA, as well as the finalized ESEA map sets at the earliest opportunity.
- Develop specific detailed protocols, in concert with the organizational liaisons, addressing processes for the dissemination of information on employment and contracting opportunities, as well as a reporting process to measure results, and share them with the First Nation leadership of the 15 NB First Nation communities.
- Develop a detailed informational package on the Proponent's safety procedures and distribute to each of the NB First Nation communities.

EBPC was able to conclude formal agreements with both the UNBI and the MAWIW Council prior to the commencement of the oral portion of the hearing. The agreements include provisions for environmental monitoring and protection of Aboriginal heritage and cultural resources.

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[18] UNBI is the Aboriginal organization representing the following 12 First Nations in New Brunswick: Madawaska, Woodstock, Kingsclear, St. Mary's, Oromocto, Eel River Bar, Pabineau, Metepenagiag, Eel Ground, Indian Island, Buctouche, and Fort Folly

[19] The MAWIW Council was formed by the Chiefs of the three most populous First Nations in New Brunswick: Big Cove, Burnt Church, and Tobique.

5.4 Engagement Activities by the NEB

The NEB encourages effective public participation in its public hearing process to allow people, who could be affected by a project, the opportunity to provide their views to the Board before the Board makes a decision about a company's application for a project. Some people may be in favour of a project, others may be against it, and some people may be uncertain of what the presence of a project might mean to them. It is important that all of these points of view are heard so that the Board can make a fully-informed regulatory decision.

To provide an opportunity for public participation in this NEB public hearing process, the NEB undertook a number of activities to identify issues and concerns of those potentially affected by the Project, to provide access to project information, and to facilitate participation.

Public Meetings

- 5 April 2006 – NEB staff held a public information session in Saint John. The purpose of this session was to share information about the NEB's role, responsibilities and mandate, and to explain how the public could become involved in the NEB's regulatory process.
- 5 June 2006 – NEB staff held an information session for UNBI in Oromocto. The purpose of this session was to share information about the NEB's role, responsibilities and mandate, and to explain how the public could become involved in the NEB's regulatory process.
- 19 and 20 June 2006 – NEB staff held public information sessions in Saint John. The purpose of these sessions was to assist individuals in selecting a method of participation and preparing for effective and meaningful participation in the public hearing process for the Brunswick Pipeline Project.
- 12 October 2006 –The NEB panel and staff held pre-hearing planning sessions in Saint John. The sessions were designed to assist parties in their preparation for the NEB public hearing on the Brunswick Pipeline Project, and to invite Intervenor feedback to assist in the planning for the oral portion of the hearing.

Communications

- When the decision to hold a public hearing was made, a hearing notice was issued on 9 June 2006. It was published in the newspapers that have the largest circulation in the areas most affected by the Project, as well as in the *Canada Gazette.* The notice outlined the subject of the hearing, where and when it would be held and how a copy of Hearing Order GH-1-2006 could be obtained.
- Invitation to the first public information session held by the Board was advertised in local newspapers; notice was provided in the Hearing Order or directly to participants for the other sessions.
- All parties to the hearing and individuals who requested to make an oral statement received notice by mail of the pre-hearing planning sessions.
- NEB staff answered numerous procedural questions via telephone inquiries.

- The Board issued a document called "What Can I Expect at the Hearing?" that provided definitions and explanations on the hearing process in order to assist Intervenors and Government Participants.
- The hearing was audio broadcast live from Saint John, which allowed the public and the parties to the hearing to follow the proceedings without having to travel and attend the hearing.
- Hard copies of exhibits were available in the hearing room, with a computer and printer available for public use.
- Transcripts of the oral hearing, in hardcopy and electronic form, were made available after each day of the proceeding.

Public Access to Documents

- The NEB requested that EBPC make available for public viewing, at six locations, all documents relating to this application and public hearing process.
- Electronic copies of documents issued by the NEB and parties to the hearing, and letters of comment were available at the National Energy Board's Website (www.neb-one.gc.ca).

These activities were designed to facilitate effective public participation in the EA and the NEB public hearing process. Persons potentially affected by the Project were given the opportunity to participate, either in full or in part, in the public hearing. Members of the public could participate in this hearing in one of three ways – by filing a letter of comment on the Project, by providing an oral statement or by seeking Intervenor status. The procedure for becoming a participant was described in Hearing Order GH-1-2006.

There were 72 Intervenors and three government participants in the NEB hearing, all of whom were provided the opportunity to present evidence, conduct cross-examination and make final arguments. The letter of comment option was intended to allow interested persons who did not wish to appear at the hearing an opportunity to provide their views and opinions on the Project. There were 184 letters of comment filed in this proceeding. The oral statement option was intended to allow interested persons who did not wish to intervene an opportunity to give their views to the Board. There were 19 oral statements presented during the oral portion of the hearing. In addition, written evidence was filed, there was an information request process, the oral portion of the hearing extended over 13 days, and written final argument was filed.

5.5 Summary of Public Comments

Comments from the public were received during the NEB public hearing process in a variety of ways:

- through information provided by EBPC about the results of its consultation program;
- via letters of comments; and
- through written and oral presentations of information during the proceeding.

Many members of the public provided comments with respect to public safety, including concerns about:

- consequences of an accident or malfunction, including malfunctions resulting from vandalism or terrorism, on public safety;
- emergency access to and from communities in the event of an accident or malfunction;
- capacity of first responders and the hospital in the event of accidents or malfunctions; and
- psychosocial health impacts related to anxiety and stress.

Many people also expressed concerns about the Project crossing through Rockwood Park. These concerns included:

- industrial development occurring on land designated for use as a park;
- environmental effects from the Project in Rockwood Park, such as effects on surface water, wildlife, caves; and,
- effects to recreational use of the Park.

The NEB also received comments regarding specific environmental effects of the Project, including concerns about:

- environmental effects to the Loch Alva Protected Natural Area and environmentally significant areas;
- off-road vehicle access along the RoW;
- effects on water resources in the urban area;
- urban wildlife;
- greenhouse gas (GHG) emissions;
- air emissions and tree removal with the potential to affect air quality;
- interference with land use; and
- effects on blueberry fields in Milford area.

Comments about socio-economic issues included concerns about:

- property damage resulting from pipeline construction;
- noise;
- disruptions in the City, e.g., traffic, dust, disturbance to zoo;
- health effects from dust; and,
- development of one pipeline leading to future development of more pipelines.

Many individuals indicated opposition to a route through the City and Rockwood Park, and near occupied buildings, such as schools, the hospital, and residences, but would accept or support a marine route for the pipeline.

Some comments were received in support of the Project, based on potential economic benefits to the community, benefits of natural gas supply and confidence in the Applicant's ability to meet environmental and safety standards.

The Board has given due consideration to all comments raised throughout this proceeding. For consideration under the CEA Act, public comments must be related to the likely environmental effects of the proposed Project. The comments and concerns that relate to the Board's CEA Act mandate have been considered in the preparation of this EA Report.

In addition, the Board received comments on a number of other matters. Those comments that relate to matters that may be more appropriately considered under the Board's mandate under the NEB Act will be considered in the Reasons for Decision to be issued at a later date. These included concerns about:

- lack of benefits to the City and citizens of Saint John;
- effects on property value and property insurance rates resulting from proximity to the Project;
- interference with future property developments;
- costs to the City resulting from the Project, such as from effects on City infrastructure;
- the consultation program conducted by M&NP and then EBPC and a general lack of information about the Project;
- corporate social responsibility of companies associated with the Proponent (Nova Scotia Power, Repsol);
- lack of consultation with the Passamaquoddy;
- the need for the Project, the economic feasibility of the Project; and potential commercial impacts of the Project; and
- consideration of alternative routes for the Project (e.g., a marine crossing).

Other comments received from the public include concerns about:

- the LNG Terminal and the pipeline Project have not been assessed together as one project; and
- environmental effects from the LNG Terminal and LNG tanker activity.

The comments regarding consideration of the LNG Terminal and LNG tanker activity have been addressed in the Board's ruling on scope in Appendix 4 and are discussed further in section 7.3.

> ***Views of the Board***
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> The Brunswick Pipeline Project marks the first time that the NEB's public hearing process has been substituted for an EA by a review panel under the CEA Act. Throughout the process, considerable effort has been focused on ensuring that the requirements of the CEA Act regarding public participation have been met. The Board greatly appreciates the

participation of the public in the EA of the proposed Project, and is of the view that the NEB public hearing process has fulfilled the public participation requirements of the CEA Act for review panels.

Paragraph 16(1)(c) of the CEA Act states that every assessment by a review panel of a project shall include a consideration of comments from the public. The Board has taken into consideration comments from the public in assessing the proposed Project. For example, in assessing the environmental effects of the Project, the Board used an issue-based approach, which relied on the identification of issues by both technical experts and by people who could be affected by the pipeline.

Subsection 34(a) of the CEA Act states that a review panel shall ensure that the information required for an assessment by a review panel is obtained and made available to the public. The Board notes that the information required for the EA was made available to the public. This information could be accessed through a variety of means, including:

- documents relating to this application and public hearing process were available for public viewing at six Saint John locations and at the oral portion of the public hearing;
- electronic copies of documents were available on the NEB's Website;
- EBPC attempted to ensure that all those located within the corridor were contacted directly and provided with information on the Project; and
- 15 First Nation communities were given information about the Project.

Subsection 34(b) of the CEA Act states that a review panel shall hold hearings in a manner that offers the public an opportunity to participate in the assessment. For this Project, the public was given an opportunity to participate in the NEB public hearing process in a variety of ways (e.g., Intervenors, letters of comment, oral statements). The Board acknowledges and appreciates the time and effort the public devoted to the process and the personal contributions they made.

Paragraph 34(c)(ii) of the CEA Act states that a review panel shall prepare a report setting out a summary of any comments received from the public, and the Board notes that section 5.5 of this Report provides a summary of public comments. Subsection 35(3) of the CEA Act states that a hearing by a review panel shall be public, and the Board notes that the NEB public hearing process was open to the public.

Regarding the intent of the CEA Act to clearly support the principle of early and meaningful public participation, the Board notes that several members of the public have argued that project consultation was inadequate. With respect to early public participation, the Board is satisfied that the consultation program commenced in a timely manner as it was initiated shortly after the precedent agreement was signed between M&NP and Repsol in July 2005. With respect to meaningful public participation, claims from members of the public suggest that EBPC and the NEB could have done a better job in relation to the key elements of meaningful public participation. In accordance with the philosophy of continuous improvement, the Board is interested in learning from its first substituted public hearing process. Section 8 of this Report provides a summary of the Board's comments on the substitution process and identifies potential areas that could be enhanced. While recognizing that certain areas could have been improved, the Board is satisfied that EBPC and the NEB public hearing process have met the requirements for public participation under the CEA Act.

An evaluation of EBPC's consultation program undertaken pursuant to the guidelines set out in the NEB's Filing Manual, including but not limited to consultation activities related to environmental matters, will be included in the Board's Reasons for Decision issued pursuant to its mandate under the NEB Act. The evaluation in the Reasons for Decision will provide a more comprehensive assessment of the consultation program, including consideration of the comments and concerns raised by participants.

6.0 METHODOLOGY OF THE NEB'S ENVIRONMENTAL ASSESSMENT

Factors Being Assessed

Section 6.0 outlines the methodology used in the NEB's EA analysis in section 7.0 of this Report. The section 7.0 analysis considers the following factors from the scope of the EA.

1. The environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
2. the significance of the effects referred to in paragraph 1;
3. comments from the public that were received during the public review; and
4. measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project.

Baseline Information and Sources:

The analysis for this EA Report is based on:

- EBPC's application, supplementary evidence and responses to information requests;
- evidence submitted by other parties to the hearing and associated responses to information requests;

- testimony provided at the oral portion of the hearing, including that provided in oral statements; and
- letters of comment received.

For more details on how to access or obtain the documents and information upon which this EA is based, please contact the Secretary of the Board at the address specified in section 10.0 of this Report.

Methodology of the Analysis:

In assessing the environmental effects of the Project, the NEB used an issue-based approach to fulfill the requirements of the CEA Act. Environmental effects are defined in the CEA Act, in respect of a project, as

> (a) any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species as those terms are defined in section 2(1) of the *Species at Risk Act (SARA)*, (b) any effect of any change referred to in paragraph (a) on health and socioeconomic conditions, on physical and cultural heritage, the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or (c) any change to the project that may be caused by the environment.

In its analysis within section 7.1, the NEB identified interactions expected to occur between the proposed project activities (identified in section 2.3) and the surrounding environmental elements. Environmental effects were classified as either adverse or positive.

Based on guidance from the CEA Agency (1994), key factors that can be considered for determining adverse environmental effects include:

- adverse environmental effects on the health of biota;
- loss of rare or endangered species;
- reductions in biological diversity;
- loss or avoidance of critical/productive habitat;
- fragmentation of habitat or interruption of movement corridors and migration routes;
- transformation of natural landscapes;
- discharge of persistent or toxic chemicals;
- toxicity effects on human health;
- loss of, or detrimental change in, current use of lands and resources for traditional purposes; foreclosure of future resource use or production; and
- adverse environmental effects on human health or well being.

A positive environmental effect is one that:

- improves ambient air quality or reduces ambient sound pressure levels;
- improves quantity or quality of water resources;
- increases indigenous plant or wildlife species populations or diversity, or enhances or increases the area of habitat for indigenous species;
- enhances the quality, the indigenous species' diversity, or the area of a wetland;
- decreases the likelihood (from present conditions) that a serious injury or loss of life could arise;
- enhances land and resource use for residential, commercial, public, forestry, agricultural or recreational use; or
- enhances understanding of local, regional, or cultural heritage through increased knowledge, or provides physical protection for a site that might otherwise have been destroyed through natural or non-project events, in the absence of the Project.

Also included in this EA was the consideration of potential accidents and malfunctions that may occur due to the Project and any change to the Project that may be caused by the environment.

If there were no expected interactions between the Project and the environmental element then no further examination was deemed necessary. Similarly, no further examination was deemed necessary for interactions that would result in positive potential effects. In circumstances where the potential effect was unknown, it was categorized as a potential adverse environmental effect. All potential adverse effects that were identified underwent further analysis in either section 7.2.3 or section 7.2.4.

Section 7.2.3 provides an analysis for all potential adverse environmental effects that are normally resolved through the use of standard design or routine mitigation measures. In these cases, mitigation measures are outlined or explanations are provided as to why mitigation measures are not required.

Section 7.2.4 provides a detailed analysis for each potential adverse environmental effect that generated particular public concern, involves non-standard mitigation measures, monitoring or follow-up programs, or requires the implementation of an issue-specific recommendation. The analysis specifies those mitigation measures, monitoring and/or follow-up programs, views of the NEB and any issue-specific recommendations and ratings for criteria used in evaluating significance.

The CEA Act requires that significance of environmental effects be considered as part of the EA, but does not define a "significant environmental effect". The CEA Agency (1994) provides guidance on determining whether an adverse environmental effect is significant. It suggests that environmental standards, guidelines, and objectives are often used to determine significance. Where threshold standards or guidelines do not exist, other methods may be needed. The CEA Agency suggests that criteria for determining significance include magnitude, geographic extent, duration and frequency, irreversibility and ecological context. Criteria for determining likelihood include probability of occurrence and scientific uncertainty.

Table 6.1, below, defines the criteria used by the NEB for evaluating the significance of the effects discussed in section 7.2.4. These criteria are largely based on criteria submitted by EBPC. However, where EBPC's criteria were unclear, in particular in the category of frequency, the NEB adopted other criteria to provide more clarity to its evaluation. "Significant" environmental effects would typically involve environmental effects that are a combination of several of high frequency, irreversible, long term in duration, large in extent, or high magnitude.

Table 6.1 – Significance Criteria Definitions

Criteria	Definition
Frequency	Low: at sporadic intervals during one phase of the project lifecycle Medium: continuous during one phase of the project lifecycle High: continuous throughout all phases of the project lifecycle
Duration	1 = < 1 month 2 = 1-12 months 3 = 13-36 months 4 = 37-72 months 5 = > 72 months
Reversibility	Reversible: effect is not permanent Irreversible: effect is permanent
Geographic Extent	1 = <1 km^2 2 = 1- 10 km^2 3 = 11-100 km^2 4 = 101-1000 km^2 5 = 1001 – 10 000 km^2 6 = > 10 000 km^2
Magnitude	For atmospheric environment Low: within normal variability of baseline conditions Medium: increase/decrease with regard to baseline but within regulatory limits and objectives High: singly or as a substantial contribution in combination with other sources causing exceedances or impingement upon limits and objectives beyond the project boundary For water resources Low: affecting the available quantity or quality of water resources at levels that are indiscernible from natural variation Medium: limiting the available quantity or quality of water resources, such that these resources are occasionally rendered unusable to current users for periods up to two weeks at a time High: limiting the available quantity and quality of water resources, such that these resources are rendered unusable or unavailable for current users during the life of the Project or for future generations beyond the life of the Project

Criteria	Definition	
	For fish and fish habitat, vegetation, wetlands, wildlife and wildlife habitat	
	Low:	localized environmental effect on a specific group, habitat, or ecosystem, returns to pre-project levels in one generation or less, within natural variation
	Medium:	portion of a population or habitat, or ecosystem, returns to pre-project levels in one generation or less, rapid and unpredictable change, temporarily outside range of natural variability
	High:	affecting a whole stock, population, habitat or ecosystem, outside the range of natural variation, such that communities do not return to pre-project levels for multiple generations
	For health and safety	
	Low:	no environmental effects beyond accident location, no lost time injuries, affecting only those involved in the accident, malfunction, or unplanned event.
	Medium:	environmental effects temporarily beyond accident location, lost time injuries, affecting persons not directly involved in the accident, malfunction, or unplanned event.
	High:	long-term environmental effects at or beyond accident location, serious injury or loss of life, affecting regional population.
	For land and resource use	
	Low:	specific group, residence or neighbourhood affected such that adjacent land use activities will be disrupted and current activities cannot continue even after short periods of time.
	Medium:	part of a community affected such that adjacent land use activities will be disrupted such that current activities cannot continue for extended period of time longer than two years.
	High:	community affected such that adjacent land use activities will be disrupted such that current activities cannot continue for extended periods of time longer than two years and are not compensated for.
	For archaeological and heritage resources	
	Low:	minor impairments to cultural resources appreciation or environmental effects to non-significant historic period heritage feature, e.g., stone fence line, field stone pile; loss of individual artifact.
	Medium:	loss of historic or cultural resources not of major importance, or predisturbed heritage site/artifacts present, however, no or little chance of intact features.
	High:	intact "significant" heritage site, pre-contact and/or contact period, features present, portion or all of site will be destroyed or lost.

Section 7.3 addresses cumulative effects, section 7.4 addresses capacity of renewable resources, section 7.5 addresses follow-up programs and section 9.2 lists recommendations for any subsequent regulatory approval of the Project.

7.0 ENVIRONMENTAL EFFECTS ANALYSIS

7.1 Project - Environment Interactions

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Biophysical	Soil and Soil Productivity	Y	▪ Grubbing, topsoil stripping and compaction during construction activities	Adv	▪ Loss of soil capability to support vegetation	▪ Section 7.2.1 ▪ Table 7.2.3
	Vegetation	Y	▪ Clearing and grubbing for site preparation ▪ Installation of watercourse crossings ▪ Construction of temporary ancillary structures and facilities ▪ Vegetation control along pipeline RoW during pipeline operation ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Loss of vegetation and change in quality of habitat for vegetation ▪ Potential for invasive species to become established ▪ Potential loss of Species at Risk or Species of Conservation Concern	▪ Section 7.2.1 ▪ Table 7.2.3 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2 ▪ Species at Risk or Species of Conservation Concern are addressed in Table 7.2.4.1

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Biophysical	Water Quality and Quantity	Y	▪ Blasting of rock ▪ Ground disturbance and equipment traffic at project sites ▪ Trench excavation ▪ Watercourse crossings ▪ Water withdrawal for hydrostatic testing of pipeline ▪ Herbicide application for vegetation control during operations and maintenance ▪ Presence of pipeline trench ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Alteration of water well yields from blasting and other construction activities ▪ Sedimentation of shallow wells and watercourses ▪ Degradation of water quality from acid generated from sulphide-bearing rock (acid rock drainage) ▪ Temporary lowering of surface water levels or nearby well yields from water withdrawal for hydrostatic testing ▪ Change in physical or chemical quality of water resources from discharge of test waters, exposed contaminated soils, hazardous materials spills, or herbicide application ▪ Change in water flow systems from presence of pipeline trench	▪ Section 7.2.1 ▪ Table 7.2.3 ▪ Effects from acid rock drainage are addressed in Table 7.2.4.3 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2
	Fish and Fish Habitat	Y	▪ Installation of pipeline through watercourses ▪ Blasting in or near waterbodies ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Change in surface water and fish habitat quality ▪ Direct mortality of fish species ▪ Potential loss of Species at Risk or Species of Conservation Concern	▪ Section 7.2.1 ▪ Table 7.2.3 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2 ▪ Species at Risk or Species of Conservation Concern are addressed in Table 7.2.4.1

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Biophysical	Wetlands	Y	▪ Site preparation and construction activities in or near wetlands ▪ Exposure of sulphide-bearing rock from excavation and trenching ▪ Seeding along RoW near wetlands during site reclamation after construction ▪ Herbicide use for vegetation control during operations ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Loss of wetland function from a change in wetland quality or quantity from site preparation, pipe installation and site restoration activities ▪ Acidification of wetland from exposed sulphide-bearing rock ▪ Establishment of invasive species of vegetation in wetlands ▪ Potential for alteration of wetland habitat quality from use of herbicides	▪ Section 7.2.1 ▪ Effects from acid rock drainage are addressed in Table 7.2.4.3 ▪ Loss of wetland function is addressed in Table 7.2.4.4 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2
	Wildlife and Wildlife Habitat	Y	▪ Vegetation removal during clearing ▪ Noise from blasting activities ▪ Trenching and pipeline installation ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Habitat fragmentation ▪ Change in quality of habitat for wildlife ▪ Direct mortality of wildlife ▪ Potential loss of Species at Risk and Species of Conservation Concern ▪ Increased access to wildlife habitat along RoW	▪ Section 7.2.1 ▪ Table 7.2.3 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2 ▪ Species at Risk or Species of Conservation Concern are addressed in Table 7.2.4.1
	Species at Risk (federal) and Species of Special Status (provincial, territorial, local)	Y	▪ Disturbance of Species at Risk or Species of Conservation Concern and associated habitat throughout construction	Adv	▪ Potential loss of Species at Risk or Species of Conservation Concern ▪ Potential loss of critical habitat for Species at Risk or Species of Conservation Concern	▪ Section 7.2.1 ▪ Table 7.2.4.1

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Biophysical	Air Quality	Y	▪ Emissions from vehicles and equipment during construction ▪ Dust from blasting activities ▪ Fugitive emissions from pipeline during operation	Adv	▪ Change in local air quality during construction ▪ Release of methane during operations into atmospheric environment	▪ Section 7.2.1 ▪ Table 7.2.3
Socio-economic	Heritage Resources	U	▪ Construction could interact with previously unidentified heritage resources ▪ Construction could interact with identified heritage resources	Adv	▪ Disturbance to, or destruction of, heritage resources	▪ Section 7.2.1 ▪ Table 7.2.4.7
	Human Health/ Aesthetics	Y	▪ Increased noise levels in Milford and Pokiok, associated with HDD activities, could disrupt nearby residents	Adv	▪ Noise impacts on residents of Milford and Pokiok	▪ Section 7.2.1 ▪ Table 7.2.4.8
		Y	▪ Elevated noise emissions (including vibrations) during construction (including blasting) near buildings or residents	Adv	▪ Increased noise levels from construction activities with potential for disturbance along the RoW ▪ Property damage from vibrations during construction	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Unauthorized access to the RoW during construction	Adv	▪ Injuries to the public	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Increased air emissions and dust during construction (refer to Air Quality section above for additional details)	Adv	▪ (addressed in the Air Quality section above)	

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Socio-economic	Human Occupancy/ Resource Use	Y	▪ Construction activities in Rockwood Park could interfere with recreational pursuits	Adv	▪ Disruption to recreational pursuits in Rockwood Park	▪ Section 7.2.1 ▪ Table 7.2.4.6
		Y	▪ Restoration and future improvements to Rockwood Park could enhance recreational pursuits	P	▪ No adverse environmental effect	▪ Effect not discussed further
		Y	▪ Construction activities could interfere with recreational use	Adv	▪ Temporary restrictions on water-courses deemed navigable ▪ Temporary restricted access to hunting, fishing, biking and ATV use locations, and other recreational areas	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Construction activities and existence of the pipeline could interact with agricultural land use	Adv	▪ Disruption of agricultural operations	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Construction activities could result in disruption to traffic flow, which in turn could interfere with access to residences and businesses	Adv	▪ Traffic interruptions	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Construction activities could impact the quality and quantity of potable water (refer to Water Quality and Quantity section above for additional details)	Adv	▪ (addressed in Water Quality and Quantity section above)	

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect · P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Socio-economic	Social and Cultural Well-being	U	▪ The operation of the pipeline may increase safety concerns of residents in close proximity to the pipeline	Adv	▪ Increased stresses on residents	▪ Section 7.2.1 ▪ Table 7.2.3
	Traditional Land and Resource Use	U	▪ Construction in areas currently used by Aboriginal persons for hunting, fishing, trapping and gathering ▪ Unauthorized access along RoW by ATVs or other motorized vehicles	Adv	▪ Effects on the current use of lands and resources for traditional purposes by Aboriginal persons, such as hunting, fishing, trapping, gathering	▪ Section 7.2.1 ▪ Effects from unauthorized access to RoW are addressed in Table 7.2.4.2 ▪ Disruption of current use of lands is addressed in Table 7.2.4.9
Other	Accidents/ Malfunctions	Y	▪ Hazardous materials spill during construction or operation from equipment refueling or malfunction ▪ Sediment control failure ▪ Temporary watercourse crossing washout during construction ▪ Accidental fire ignited during construction activities	Adv	▪ Contamination of soil and water resources ▪ Sedimentation of watercourses ▪ Damage to vegetation and to wildlife habitat, and reduced air quality, in the event of a fire	▪ Section 7.2.1 ▪ Table 7.2.3
		Y	▪ Pipeline rupture or leak during operation, and potential ignition of gas	Adv	▪ Direct mortality to humans, wildlife and vegetation in the area in the event of a fire	▪ Section 7.2.4.10

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

	Environmental element	Project interaction? Y/N/U	Description of interaction (How, When, Where)	Type of potential effect P/Adv	Potential adverse environmental effect	Effects and mitigation measures
Other	Effects of the Environment on the Project	U	▪ Weather (severe rainfall and flooding) ▪ Seismic activity (earthquakes) ▪ Sinkholes ▪ Induced potential	Adv	▪ Erosion of pipeline cover during operation from severe rainfall or flooding ▪ Damage to pipeline from seismic activity ▪ Damage the pipeline through subsidence related to a sinkhole ▪ Danger to personnel and damage to coatings and pipe from fault currents resulting from lightning or upset conditions of electrical facilities inducing electrical potential in the pipe	▪ Section 7.2.1 ▪ Table 7.2.3

Legend: Y (Yes); N (No); U (Uncertain); P (Positive); Adv (Adverse)

7.2 Potential Adverse Environmental Effects

7.2.1 Environmental Management Framework

To mitigate and manage the potential adverse environmental effects of the Project, EBPC indicated that it would implement its Environmental Management Framework. The Project's Environmental Management Framework would be comprised of the following major program components:

- a Pipeline Design and Quality Assurance Program;
- an Environmental Protection and Safety Management Program;
- an Emergency Preparedness and Response Program; and
- a Public Awareness Program.

The Project would be designed in accordance with the design criteria, specifications, programs, manuals, procedures, measures, and plans identified in the Canadian Standards Association (CSA) Z662 standard. A quantitative risk analysis (Bercha International Inc., 2005) was conducted on the proposed pipeline consistent with the risk assessment guidelines established in the CSA Z662 standard. A Quality Assurance Program would be implemented to ensure that the pipe and pipeline components used in construction of the pipeline meet the specifications provided for in the pipeline design to reduce the probability of material defects.

EBPC's Environmental Protection and Safety Management Program would include a construction safety manual and a maintenance safety manual to ensure work is performed safely and in accordance with applicable health and safety regulations. It would also include an environmental protection plan (EPP) for construction, based on the current policies and procedures, environmental management practices, and contingency plans of M&NP and Duke Energy Gas Transmission for pipeline projects. The EPP would include:

- roles and responsibilities for implementation of environmental protection measures, descriptions of major construction activities and a definition of their sequence;
- qualifications and training requirements for personnel implementing the EPP;
- a definition of major construction activities and definition of their sequence, as well as the mitigation measures and applicable procedures to be implemented for various construction activities;
- measures to minimize disruption to local communities as a result of construction;
- identification of the environmental resources present along the pipeline route and the specific mitigation measures to be implemented to protect these resources;
- a description of monitoring and follow-up measures to be implemented; and
- contingency and emergency response plans for accidents, malfunctions and unplanned events, such as hazardous spill response procedures, soil erosion and sediment control guidelines, fire response, plans in the event contamination sites are encountered, response plans for wildlife encounters, and procedures and guidance in the event a heritage, paleontological, or archaeological resource is encountered during construction.

EBPC stated that it would use a site inspection and monitoring program to ensure the effectiveness of EPP implementation, including having an inspector onsite to ensure compliance with the EPP. The inspector would work with project personnel to address environmental issues and take immediate action to address any work in non-compliance with the Environmental Protection and Safety Management Program, including stopping or relocating work if necessary.

The Environmental Protection and Safety Management Program would include other components; for example, comprehensive operation and maintenance manuals describing safe work plans and procedures and requirements for worker and contractor training related to health and safety. A Pipeline Integrity Management Plan would be prepared and implemented to detect pipeline defects and prevent pipeline ruptures. Routine pipeline monitoring and surveillance programs, including line patrol surveys, would be conducted to identify potential operation problems, security issues, and unauthorized activities on the RoW.

Audits and site inspections would be conducted to ensure that the Environmental Protection and Safety Management Program policies and procedures are being implemented effectively, deficiencies recorded, and corrective action taken.

The Emergency Preparedness and Response Program would be comprised of standards addressing emergency response training and the scope and frequency of emergency response exercises, continuing education programs for first responders and Emergency Planning Zone residents, and a formal liaison program for both lead and supporting government agencies. It would include a Field Emergency Response Plan.

A Public Awareness and Education Program would be implemented to alert the public of the requirements and restrictions associated with activities conducted in and around the pipeline RoW. The program would include ongoing communication and consultation.

Since the Environmental Management Framework described above applies to all management and mitigation of all potential environmental effects of the Project, the elements of the framework will only be discussed further in this EA Report in the context of those specific effects where elaboration is required.

In response to possible Certificate conditions issued by the Board for comment during the GH-1-2006 proceeding, EBPC expressed concerns about a possible condition that would require EBPC to specify, at least 30 days prior to construction, a detailed list of the number and type of each inspection position in its inspection program, including job descriptions, qualifications, roles, responsibilities, and decision-making authority. EBPC suggested that it would be unduly restrictive given the likelihood that construction inspection staffing levels, duties and responsibilities must be adjusted to accommodate the work flow, which is impacted by weather, landowner requirements, certain site-specific environmental matters and other unforeseen conditions.

Views of the Parties

Parties to the hearing provided few comments on EBPC's Environmental Management Framework in general. The vast majority of the comments made focused on EBPC's Emergency

Preparedness and Response Program. These comments are addressed later in this Report, at section 7.2.4.10.

Views of the Board

The Board finds that EBPC's proposed Environmental Management Framework as described would be consistent with the *Onshore Pipeline Regulations, 1999* (OPR) and is appropriate.

The Board recognizes EBPC's concern that the details of its inspection program would need to be flexible in order to address conditions during construction. To address this concern while still providing the Board with information demonstrating the adequacy of EBPC's inspection program, the Board has amended the proposed condition that would be recommended should the Project receive regulatory approval, to require that EBPC file preliminary information about its program and how any changes to its program would be determined.

If the Project were to receive regulatory approval, the Board recommends that the following general conditions be attached to the Certificate.

- EBPC shall file with the Board for approval, at least sixty days prior to construction, a project-specific EPP. This EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in EBPC's application for the Project, subsequent filings, evidence collected during the hearing process, or as otherwise agreed to during questioning or in its related submissions. The EPP shall describe the criteria for the implementation of all procedures and measures, and shall use clear and unambiguous language that confirms EBPC's intention to implement all of its commitments. Construction shall not commence until EBPC has received approval of its EPP from the Board.

  The EPP shall address, but is not limited to, the following elements:
  a. environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all project phases, and activities;
  b. a reclamation plan which includes a description of the condition to which EBPC intends to reclaim and maintain the right of way once the construction has been completed, and a description of measurable goals for reclamation; and
  c. evidence of consultation with relevant regulatory authorities that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.

- EBPC shall file with the Board for approval, at least thirty days prior to construction, a construction inspection program. The program shall include:
  a. a preliminary list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, decision-making authority;
  b. a discussion of how any changes to the items outlined in (a) would be determined during the course of construction; and
  c. the reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety.

- Within 6 months following commencement of operation of the Project, and on or before the 31st of January following each of the second (2nd) and fourth (4th) complete growing seasons following commencement of the operation of the Project, EBPC shall file with the Board a post-construction environmental report that:
  a. identifies on a map or diagram any environmental issues that arose during construction;
  b. provides a discussion of the effectiveness of the mitigation applied during construction;
  c. identifies the current status of the issues identified, and whether those issues are resolved or unresolved; and
  d. provides proposed measures and the schedule EBPC shall implement to address any unresolved issues.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations B, E, and O.

The Board expects that EBPC would include in its EPP all commitments made during the course of the GH-1-2006 proceeding. This includes all commitments made in response to comments or recommendation from other parties, including government departments. Through consultation with relevant regulatory authorities, the Board expects that any outstanding comments from government departments, such as EC, about mitigation measure details would be addressed in the development of the EPP for the Project.

7.2.2 Routing

One of the primary forms of mitigation of potential effects from pipeline projects is appropriate route selection. As discussed in section 3.3, EBPC considered various alternative routes for the Project and evaluated routing options based on criteria that included environmental constraints and minimizing disturbance through the use of existing corridors where practicable.

EBPC noted that three vegetation-based environmentally significant areas intersect with, or are located near, the preferred corridor. These areas are along the shores of rivers. The site where the preferred corridor would cross these rivers may be some distance from the biological feature for which the environmental significant area was established to protect. The preferred corridor also runs through the southern edge of the Loch Alva Protected area, which contains 21 925 ha of two neighbouring ecoregions.

EBPC indicated that detailed routing within the preferred corridor would be based on further site-specific constraint mapping, field investigations, and information received from the public, landowners, other interested parties, and government agencies. EBPC referred to avoidance of environmental features during detailed routing as a form of mitigation.

Views of the Board

The Board is satisfied that EBPC has selected an appropriate corridor with respect to minimizing adverse environmental effects and finds that EBPC has demonstrated a commitment to avoidance of environmental features in the final route selection process.

7.2.3 Analysis of Potential Adverse Environmental Effects to be Mitigated through Standard Measures

This section identifies proposed standard design or mitigation measures committed to by EBPC. These measures have been summarized in this section. The Board expects that detailed standard design or mitigation measures would be provided by EBPC in its EPP and other documents as part of its Environmental Management Framework as discussed in section 7.2.1.

Potential Adverse Environmental Effect	**EBPC's Proposed Standard Design or Mitigation Measures**
Loss of soil capability to support vegetation	▪ Avoid agricultural lands where practicable ▪ Compensate affected landowners during construction ▪ Suspend work in wet conditions ▪ Maintain soil layers ▪ Maintain a single travel path over agricultural lands
Loss of vegetation and change in quality of vegetation habitat	▪ Limit area of disturbance ▪ Avoid plant Species at Risk and Species of Conservation Concern by route selection ▪ Plan for watercourse crossings using NB Department of Environment and Local Government's (NBDELG) 2002 Watercourse Alteration Technical Guidelines ▪ Use erosion control measures ▪ Manage contaminated soils in accordance with the NBDELG's 2003 Guideline for Management of Contaminated Sites ▪ Limit use of herbicide during RoW maintenance, use herbicide of short persistence and low ecological toxicity, and follow manufacturer's guidelines for spraying
Potential for invasive species to become established	▪ Revegetate exposed soils with native vegetation to ensure long-term stabilization ▪ Seed mixes to be free of weed species to extent feasible ▪ Use cleaning stations for equipment and vehicles where required to reduce the spread and introduction of invasive species of plants

Potential Adverse Environmental Effect	**EBPC's Proposed Standard Design or Mitigation Measures**
Alteration of water well yields from blasting and other construction activities	▪ Monitor wells and water supply lakes and rivers within 50 m of excavation ▪ Identify wells within 500 m of blasting ▪ Inspect wells within 100 m of blasting and identify low yield wells ▪ Collect water samples from wells closest to blasting ▪ Design blasts to minimize vibration ▪ Follow regulatory guidelines for blasting ▪ Remediate or replace permanently affected wells ▪ Provide temporary water supplies when required
Sedimentation of shallow wells and watercourses	▪ Use sediment and erosion control measures ▪ Treat or replace water supply if required ▪ Provide temporary water supplies if necessary
Temporary lowering of surface water levels or nearby well yields from water withdrawal	▪ Adjust water withdrawal procedures in accordance with watersource water levels
Change in physical or chemical quality of water resources from discharge of test waters, exposed contaminated soils, hazardous material spills, or vegetation control measures	▪ Minimize dewatering for hydrostatic testing by transferring water from one test section to another ▪ Return test waters to a vegetated area in the same watershed from which the water was taken ▪ Evaluate hydrostatic test waters qualitatively, and if required, sample and analyze for a set of indicative water quality parameters ▪ Take mitigation action if water quality parameters exceed the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines ▪ Dispose of contaminated soils as per applicable permits and regulations ▪ Enforce a minimum setback from water resources for use of hazardous materials ▪ No chemical spraying of herbicides on the RoW, use only herbicides of low persistence and low ecological toxicity within the confines of the valve and metering sites ▪ Treat or replace water supply if required
Change in water flow systems from presence of pipeline trench	▪ Install groundwater flow barriers to prevent flow along trench ▪ Use backfill with hydrological properties that avoid alteration to groundwater flow ▪ Avoid placing high traffic work sites (e.g., marshalling or storage yards) in protected watersheds, slopes and recharge areas
Change in surface water and fish habitat quality Direct mortality of fish	▪ Obtain DFO approval for blasting near/through watercourses ▪ Develop watercourse crossing plans using DFO and Watercourse Alteration Technical Guidelines ▪ Apply for, and follow requirements of, Watercourse and Wetland Alteration (WAWA) permit ▪ Use sediment and erosion control measures ▪ Limit area of disturbance, especially within 30 m of a watercourse ▪ For winter clearing, maintain a 30 m buffer zone at watercourse crossing locations ▪ Dispose of hydrostatic test waters within the same watershed from which water was obtained ▪ Test hydrostatic test waters for total suspended solids, metals and general water chemistry ▪ Monitor water discharge areas for erosion

Potential Adverse Environmental Effect	EBPC's Proposed Standard Design or Mitigation Measures
	▪ Monitor approach roads, abutments and bridge decks regularly; correct deficiencies immediately ▪ Minimize instream work, isolate work from the water flow where practicable ▪ Obtain DFO authorization for wet crossings, dry crossings, and instream blasting ▪ Use floating silt curtains and pump around for instream sediment control during wet crossings ▪ Instream equipment should be clean and inspected for drips.and leaks prior to entering a watercourse and inspected regularly for leaks while instream ▪ Restore stream to preconstruction condition ▪ Contour, stabilize, armor and vegetate disturbed stream banks ▪ Adhere to DFO's harmful alteration, disturbance, or destruction of fish habitat (HADD) authorization conditions ▪ At the Dennis Stream: make every reasonable effort to use an isolated (dry) crossing method. If a wet crossing is required, use additional measures to limit sedimentation as outlined in EBPC's ESEA ▪ Designate fuel storage areas to be at least 100 m from watercourses ▪ Designate refueling areas to be at least 30 m from watercourses ▪ Use proper containment measures for hazardous materials storage tanks ▪ For annual maintenance activities involving travel along the length of the RoW, obtain permits to ford watercourses ▪ During operation, limit use of herbicides to station facilities, and use low toxicity, short persistence herbicides
Habitat fragmentation	▪ Locate RoW adjacent to other linear disturbances (e.g., SJL, IPL Route) ▪ Minimize RoW width and clearing to greatest extent practicable ▪ Minimize size of temporary workspaces ▪ Confine clearing and grubbing to RoW ▪ Minimize removal of shrubs and grubbing within 30 m of all streams ▪ Revegetate work areas
Change in quality of habitat for wildlife	▪ Retain surface soils for reinstatement following maintenance or repairs ▪ A WAWA permit would be obtained for any mechanical vegetation management within 30 m of a wetland greater than 1 ha or contiguous to a watercourse ▪ Manage contaminated soils in accordance with NBDELG's 2003 Guideline for Management of Contaminated Sites ▪ Avoid sensitive wildlife areas by route selection
Direct mortality of wildlife	▪ Check open trenches prior to backfilling for wildlife, such as wood turtles ▪ Minimize length of time that trenches are left open ▪ Erect fencing around boreholes and pits to protect wildlife ▪ Carry out RoW vegetation control to occur outside of the breeding season of bats ▪ Use manual and mechanical means of vegetation control along RoW; use chemical spraying only within the confines of graveled meter stations and other station facilities ▪ No chasing, harassing, or feeding wildlife by personnel ▪ Operate vehicles at appropriate speed and yield to wildlife ▪ Properly store and dispose of construction site wastes that might attract wildlife

Potential Adverse Environmental Effect	EBPC's Proposed Standard Design or Mitigation Measures
Change in local air quality during construction	▪ Use dust suppressants, such as water, during periods of heavy activity and dry periods ▪ Follow equipment maintenance schedules ▪ Use low sulphur fuels where feasible ▪ Preserve natural vegetation where practicable ▪ Minimize activities that generate large quantities of dust during high winds
Release of methane during operations into atmospheric environment	▪ Use a regular preventive maintenance program, including a leak detection and repair program and cathodic protection system to prevent leaks ▪ During major maintenance activities, isolate the pipeline section to minimize natural gas released ▪ Ensure pipeline operations staff are trained on best practices to reduce methane emissions
Increased noise levels from construction activities with potential for disturbance along the RoW	▪ Use noise controls where warranted (e.g., sound barriers) ▪ Use timing restrictions where warranted ▪ Keep the equipment in good working order (with mufflers) and restrict construction activities to daytime hours (10-12 hours per day) where practicable ▪ Due to the relatively isolated location of the proposed HDD for the St. Croix River, EBPC did not anticipated that a considerable amount of noise reduction mitigation would be required at that location. However, the proximity of any new residences in the area would be reviewed prior to commencement of the HDD and noise mitigation would be reconsidered if there were new residences that could be adversely affected by the noise created by the HDD activities. ▪ Noise associated with activities for the Saint John River HDD is addressed in section 7.2.4.8 Noise impacts on residents of Milford and Pokiok
Property damage from vibrations during construction	▪ Pre-blast surveys would be conducted for structures such as homes and cemeteries within a 200 m radius of planned blasting activities to ascertain baseline conditions and verify, with post-blast review, that blasting does not adversely affect these structures ▪ If there were an adverse effect on these structures, then EBPC would either rectify the damage, or compensate for it
Injuries to the public	▪ Use blast mats to prevent flying debris ▪ The Construction Safety Manual would prescribe protective measures (e.g., preparation of safe work procedures, use of personal protective equipment) to mitigate potential hazards (e.g., noise, hazardous chemical handling and conventional construction hazards) and to ensure the Proponent's policy and applicable regulations are met (e.g., Canada Labour Code, *Transportation of Dangerous Goods Act* and *Regulations*, *Workplace Hazardous Materials Information System Regulations*, Environmental Protection and Safety Management Program) ▪ Use signage, natural barriers, fencing ▪ A comprehensive and detailed program to effectively restrict unsupervised access to the RoW during construction would be developed in consultation with the construction contractor. This plan has not yet been developed as the contractor would not be hired until early 2007. However, the following methods would be incorporated into the program: signage; 24-hour security; and notice to schools, churches, community centres and recreation users.
Temporary restrictions on watercourses deemed navigable	▪ Signage would be implemented warning boaters and fishers of work in progress in the project area ▪ Approval from the Minister of Transport (Transport Canada) under the *Navigable Waters Protection Act* would be obtained

Potential Adverse Environmental Effect	EBPC's Proposed Standard Design or Mitigation Measures
Temporary restricted access to hunting, fishing, biking, ATV use locations, and other recreational areas	▪ Existing access across the RoW would be maintained during construction with only very minor temporary interruptions ▪ All trail systems, including the system in Rockwood Park, would only be partially affected in the vicinity of the construction activities and would be fully restored once construction is completed ▪ All areas to be affected by pipeline construction activities would be restored following the completion of construction and EBPC's anticipated that current recreational activities would resume after clean-up ▪ Shamrock Park may be used as a staging area for the Saint John River HDD; however, that work is planned for the winter of 2007/2008 when recreational use of the Park is limited and it is anticipated that the soccer and baseball fields would be restored for use in the summer of 2008
Disruption of agricultural operations	▪ The topsoil layers would be removed and piled separately during construction, and replaced during site restoration ▪ In any location where the topsoil has to be stored for extended periods, or over winter, it will be protected from wind and water erosion by covering it with hay mulch and seeding ▪ Farmers/landowners whose agricultural fields are within the eventually selected 30 m RoW would be compensated for lost production during the construction phase of the Project ▪ Areas with crop growth that are directly affected by construction activities may experience reduced crop yields for a brief period after construction. EBPC would work with farmers/landowners to monitor any residual crop loss and, if required, implement additional mitigation in order to return the land to its pre-construction capacity. Farmers/landowners would be compensated for reduced crop yields during this post-construction period.
Traffic interruptions	▪ EBPC and its construction contractors would work with City officials and local law enforcement officials to minimize traffic interruptions and ensure that traffic continuity is maintained, if periodically slowed down ▪ A traffic management plan would be developed for the access areas to both HDD sites. The development of this plan may warrant consultation with City of Saint John officials. ▪ Along major transportation corridors such as Route 1, or at corridors with high traffic volumes such as Rothesay Avenue, the pipeline would likely be installed by bore (i.e., placed under the road with no interruption to traffic) ▪ Any temporary traffic disruptions would be coordinated with the appropriate municipal or provincial authorities and would meet all applicable bylaws or regulations. At no time would access to any area be completely cut off. Alternate access, if required, would always be available in case of emergency. ▪ Site restoration would immediately follow pipeline installation
Increased stresses on residents	▪ EBPC would develop and implement an Environment, Health & Safety Policy that establishes its commitment to protecting the environment, and ensuring the health and safety of its employees, customers and members of the public. ▪ An Environmental Management Framework, comprised of a Pipeline Design and Quality Assurance Program, an Environmental Protection and Safety Management Program, an Emergency Preparedness and Response Program, and a Public Awareness Program, would be implemented to ensure that the Proponent's Environment, Health & Safety Policy objectives are achieved. Specific plans and procedures would be prepared within this Environmental Management Framework to mitigate potential

Potential Adverse Environmental Effect	EBPC's Proposed Standard Design or Mitigation Measures
	adverse environmental effects to public and worker health and safety identified from the assessment of project activities. ▪ EBPC emergency planning, first responder training and public education would be subject to NEB requirements under the OPR and CSA Z731 ▪ EBPC would engage the Saint John Fire Department (SJFD) and other first responders in southern NB in the development and finalization of an Emergency Response Plan. This plan would be compliant with regulatory requirements and achieve the concurrence of the SJFD. ▪ Higher grades of steel together with the thicker wall pipe would be used in built-up areas, which means that design parameters would exceed code requirements in many areas. This would give the Brunswick Pipeline a safety factor greater than that required by the applicable Codes. ▪ EBPC's consultation efforts would continue through the development of the detailed route within the preferred corridor, and the operations phase of the Project.
From accidents and malfunctions: Contamination of soil and water resources Sedimentation of watercourses Damage to vegetation and to wildlife habitat, and reduced air quality, in the event of a fire	▪ Handle fuel and other hazardous material in compliance with the *Transportation of Dangerous Goods Act* and *Workplace Hazardous Materials Information System*, away from vulnerable areas ▪ Set out spill response procedures in the EPP and Field Emergency Response Plan ▪ Implement and inspect sediment and erosion control measures, with particular attention during and after extreme precipitation events, and take remedial action where necessary ▪ Use procedures to prevent fires, and train workers and contractors in fire prevention and response
Erosion of pipeline cover during operation from severe rainfall or flooding Damage to pipeline from seismic activity	▪ Design pipeline in accordance with CSA Z662 Standard taking into account environmental stresses such as earthquakes ▪ Implement EBPC's Quality Assurance Program ▪ Include actions to respond to environmental perturbations in development of a Maintenance Safety Manual
Damage to the pipeline through subsidence related to a sinkhole	▪ Complete a detailed geotechnical evaluation along the proposed RoW ▪ Avoid areas where subsidence or sinkholes are a concern
Danger to personnel and damage to coatings and pipe from fault currents resulting from lightning or upset conditions of electrical facilities inducing electrical potential in the pipe	▪ Design and construct Project to meet requirements of CSA Z662, CSA-C22.3 No. 6 Principles and Practices of Electrical Coordination between Pipelines and Electric Supply Lines
EBPC's ESEA and Environmental Manual for Construction specify further details on standard mitigation.	

Views of the Board

The Board finds that for this Project, if EBPC follows the above-mentioned standard design or mitigative measures, these potential adverse environmental effects are not likely to be significant. Further, should the recommendations in section 9.2 be included as conditions of approval in any Certificate that the NEB may issue, implementation of the design and mitigation measures would be assured.

7.2.4 Detailed Analysis of Potential Adverse Environmental Effects

The discussion in these sections includes a summary of mitigation measures committed to by EBPC. The Board expects that detailed mitigation measures would be provided by EBPC in its EPP and other documents as part of its Environmental Management Framework as discussed in section 7.2.1.

7.2.4.1 Loss of Species at Risk or Species of Conservation Concern/Loss of Critical Habitat for these Species

Background/Issues	Based on existing surveys for the SJL and additional surveys carried out for the Project, the Applicant identified several Species at Risk or Species of Conservation Concern with the potential to inhabit areas on or near the project corridor, as noted in section 4.1. EC recommended that baseline information on Species at Risk and Species of Conservation Concern, which may be impacted by the Project, be provided and that appropriate mitigation and monitoring measures be identified. EBPC completed additional surveys in 2005 and 2006, the results of which were submitted to the Board, EC and NBDOE on 15 January 2007. The additional surveys examined fish and fish habitat, rare plants, wetlands, and birds, and visual observations were noted of wildlife Species of Conservation Concern during the biological fieldwork. EBPC's analysis indicated that no new results warranted additional mitigation above that already set out in its application. Any species of concern that were identified during these surveys and any additional mitigation for Species at Risk or Species of Conservation Concern would be included in the EPP. EBPC indicated that it would consult with regulatory agencies, including EC, in 2007 following the submission of the survey results with respect to any specific issues and mitigation to be developed. As part of its evidence, FORP submitted the results of surveys for rare aquatic vascular plants in Rockwood Park, data from the Atlantic Canada Conservation Data Centre about occurrences of rare and endangered fauna and flora in or near the preferred corridor in the City of Saint John, and a report on damselflies and dragonflies in Rockwood Park.
Mitigation Measures	EBPC committed to the following: ▪ Avoiding environmentally sensitive areas and Species at Risk and Species of Conservation Concern by route selection ▪ Limiting areas of disturbance ▪ Developing site-specific EPP measures to protect Species at Risk and Species of Conservation Concern ▪ Including vascular plant Species at Risk and Species of Conservation Concern in employee awareness training ▪ Flagging or fencing environmentally sensitive areas prior to commencement of construction (including clearing)

	▪ Field identifying and flagging critical Atlantic salmon spawning and rearing habitat in watercourse 109 (Dennis Stream) with Atlantic Salmon Federation personnel ▪ Avoiding critical Atlantic salmon spawning and rearing habitat in watercourse 11 (Dennis Stream) in consultation with DFO ▪ For isolated watercourse crossings, isolating work area and ensuring no wood turtles present before commencing work ▪ Checking open trenches for wildlife, such as wood turtles, prior to backfilling ▪ Conducting majority of clearing and site preparation work in winter months ▪ Confining clearing and grubbing to 30 m-wide RoW ▪ Minimizing footprint of temporary workspaces within forested areas ▪ Minimizing grubbing and grading within 30 m of all streams ▪ Establishing new RoW adjacent to existing linear developments and areas of disturbance (approximately 66% of preferred corridor includes existing RoWs) ▪ Working with appropriate regulating agency to develop any additional mitigation measures based on fish and fish habitat surveys, vegetation surveys and bird surveys conducted late 2006, and including these measures in the EPP ▪ Working with EC and provincial representatives to develop any mitigation measures for any Species at Risk identified during construction

Monitoring	EBPC committed to the following:
	▪ Inspections of open pipeline trenches to ensure that no wildlife (particularly herpetiles) become trapped or buried in the trenches
	▪ To address the potential for sedimentation to affect fish species, surface water compliance monitoring would consist of the following core elements for all wet-crossings, HDDs, dry-crossings rated as having medium or high sensitivity fish habitat (as outlined in applicable permits), and as determined in consultation with provincial and federal agencies:
	  ▪ Sampling of total suspended solids when precipitation events result in the visible overland flow of water;
	  ▪ Regular sampling of pH in watercourses where interaction with sulphide-bearing rock has been identified;
	  ▪ Inspection of all sediment and erosion control measures;
	  ▪ Inspection of hazardous materials storage areas (including potential sediment generating materials);
	  ▪ Inspection of temporary bridge structures for verification of correct installation, and for subsequent signs of erosion or degradation;
	  ▪ Development and maintenance of a log of erosion-prone areas; and
	  ▪ Exceedance thresholds (e.g., CCME Guidelines) and remedial actions.
	▪ Monitoring at meter stations and other station facilities for the potential environmental effects of herbicide use to vascular plant Species at Risk or Species of Conservation Concern

Follow-up Programs	EBPC has committed to developing a follow-up program to assess the effectiveness of proposed mitigation for fish and fish habitat with the following objectives: ▪ verify that mitigative strategies used during construction, operation and maintenance have been effective; ▪ determine the total amount of HADD that occurred as a result of the Project; ▪ verify that HADD compensation is completed effectively; and ▪ identify the need for any additional HADD compensation.

NEB Evaluation of Significance	Frequency	Duration	Reversibility	Geographical Extent	Magnitude
	Low	2	Reversible	2	Low
	Adverse Effect				
	Not likely to be significant				

Views of the Board

The Board notes that EBPC has committed to including project-specific mitigation measures for fish, wildlife (including birds), and vegetation Species at Risk and Species of Conservation Concern, as identified in the 2006 surveys, in the EPP. The Board expects EBPC to develop mitigation in consultation with the appropriate regulatory agencies, specifically EC, DFO and provincial departments as appropriate.

If the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed:

- as part of the recommendation to submit an EPP outlined in section 7.2.1 above, the EPP shall address site-specific plans for habitat harboring Species at Risk and of Conservation Concern where it cannot be avoided; and
- EBPC shall file with the Board for approval, at least sixty days prior to construction, follow-up programs as required by the CEA Act. A program shall be designed to verify the accuracy of the EA predictions and to assess the effectiveness of mitigation for fish and fish habitat as outlined in the Brunswick Pipeline Project ESEA (Volume 1). Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The follow-up program shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up program shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations B (3), C and P.

Given the proposed mitigation measures, including avoiding environmentally sensitive areas, Species at Risk and Species of Conservation Concern by route selection within the corridor, EBPC's commitment to work with appropriate regulatory agencies in developing additional specific mitigation and to include additional specific mitigation in its EPP, and the above recommendations of the Board, the Board concludes that the Project is not likely to result in significant adverse effects to Species at Risk or Species of Conservation Concern.

7.2.4.2 Unauthorized Access to RoW

Background/Issues	Unauthorized access by ATVs was identified by EBPC as a potential interaction as a result of the Project. Potential adverse environmental effects include: change in quality of surface water, wetlands, fish habitat, vegetation habitat and wildlife habitat and direct mortality of fish, vegetation and wildlife. EBPC noted that human disturbance by ATVs was an environmental effect noted through monitoring studies of wetlands carried out on the SJL. Unauthorized access to the RoW was raised as a concern in several comments from the public. Various parties voiced concern over the impact ATV access may have to wetlands, vegetation, water resources, fish and fish habitat, and wildlife and wildlife habitat along the pipeline RoW. EBPC objected to a possible Certificate condition, circulated by the Board in advance of the oral portion of the hearing, which would require EBPC to file an Access Management Plan should the Project receive regulatory approval. EBPC argued that it has committed to address the issue of unauthorized ATV RoW access, reassess the effectiveness of the initial response, and refine its approach on an as-needed basis. Based on these commitments and in light of other anticipated Certificate conditions that would compel EBPC to implement these commitments, EBPC argued that the Access Management condition would be duplicative and unnecessary.
Mitigation Measures	EBPC indicated that measures to control access typically employed include installation of natural barriers using the natural topography to advantage (e.g., placement of rock barriers, planting of tree and shrub barriers), fencing and posting of signs prohibiting trespass. EBPC committed to developing specific measures to mitigate unauthorized access to the RoW after the detailed pipeline route has been selected and after discussions with landowners, stakeholders and regulatory agencies. EBPC also indicated that its Public Awareness Program would include a discussion of trespass and the potential consequences of unauthorized or unlawful entry onto properties along the RoW. EC recommended that EBPC prepare a plan to prevent, monitor, report and remediate damage from ATV access to wetlands that reflects lessons learned from the SJL experience. Such a plan should also include the following elements: ▪ site-specific measures to prevent ATV use in wetlands along the RoW; ▪ provisions for ensuring that revegetated areas around wetlands damaged by ATV use are routinely monitored and restored as appropriate; and ▪ identification of the long-term threats posed by unauthorized access to the RoW, taking into account that once ATV trails have been established, access could continue post-decommissioning. EBPC acknowledged that the main lesson learned from the experience to date, such as with the SJL, is that one type of control measure does not fit all scenarios. These measures must be tailored to the site conditions, landowner preferences, and the severity of undesired ATV traffic. Site-specific measures to address ATV traffic would be noted in the EPP.
Monitoring	EBPC committed to routinely monitoring the pipeline RoW for unauthorized activities during the course of the project operation and maintenance phase. If unauthorized activities in the RoW were detected, additional measures to stop or discourage unauthorized activities would be implemented after discussions with landowners, stakeholders and regulatory agencies, as appropriate. EC indicated that it was unclear whether information collected through the monitoring program would be collected at regular intervals and provided to the appropriate federal and provincial government authorities for review.
Follow-up Programs	EBPC did not commit to developing a follow-up program specifically for access management.

NEB Evaluation of Significance	Frequency	Duration	Reversibility	Geographical Extent	Magnitude
	High	5	Reversible	1	Low
	Adverse Effect				
	Not likely to be significant				

Views of the Board

If the Project were to receive regulatory approval, to ensure that EBPC designs an effective Access Management Plan that would be implemented, monitored and reported on, the Board recommends that the following conditions be imposed:

- EBPC file with the Board for approval, at least thirty days prior to the planned start of construction, a project-specific Access Management Plan that includes:
  a. EBPC's goals and measurable objectives regarding the Access Management Plan;
  b. the methods and procedures to be used to achieve the mitigation goals;
  c. the criteria to determine if the mitigation goals have been met;
  d. the frequency of monitoring activities along the right of way;
  e. a description of the adaptive measures that would take place in the event that access management measures are ineffective; and
  f. evidence of consultation with relevant regulatory authorities and landowners that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.

Construction shall not commence until EBPC has received approval of its Access Management Plan from the Board.

- EBPC file with the Board for approval, at least sixty days prior to construction, follow-up programs as required by the CEA Act. A program shall be designed to verify the accuracy of the EA predictions and to assess the effectiveness of mitigation for access management as outlined in the Access Management Plan. Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The follow-up program shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up program shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations C, G and P. For the purpose of clarity, the term "construction" as used in the Board's recommendations, and throughout this document, includes all clearing activities.

Although EBPC provided a comment that the first recommendation would be duplicative based on commitments already made by EBPC, unauthorized ATV access to the RoW resulted in adverse effects on the SJL and is cause for concern for several parties. The Board is of the view that the elements of the recommended condition set out specific requirements for information to be filed that are more explicit than that previously committed to by EBPC. It is up to EBPC to determine how it meets the condition and how it structures the Access Management Plan within or separate from other documents, such as its EPP. The Board has removed one requirement under the first recommendation from the version circulated for comment related to a schedule of expected reporting to the Board on the progress and success of the measures implemented. This requirement would be duplicative of the requirements in the second recommendation.

The Board notes EC's concern about whether information collected as part of EBPC's monitoring program would be regularly collected and filed with appropriate government authorities. As part of the second recommendation, the Board expects that EBPC would consult with relevant authorities on the development of the follow-up program and would develop a schedule for such filing of results in the follow-up program design.

Given the proposed mitigation measures and the above recommendations of the Board, the Board finds that the Project is not likely to result in significant adverse effects as a result of unauthorized access to the RoW.

7.2.4.3 Acid Rock Drainage

Background/Issues	EBPC acknowledged that Acid Rock Drainage (ARD) is an issue with potential impacts on water resources and aquatic life. Exposure of sulphide-bearing rock as a result of construction activities can result in acid drainage that can degrade water quality of down-gradient water. Approximately 64% of the urban portion of the corridor and approximately 67% of the rural portion of the corridor passes through potential sulphide-bearing rock. EBPC submitted an ARD Management Plan, included as Appendix D of the Duke Energy Gas Transmission Manual for Construction Projects, that sets out mitigation measures to control ARD. EBPC would carry out a detailed drilling and sampling program to delineate the potential acid rock generating formations along the corridor. NRCan submitted comments and recommendations regarding ARD. EBPC responded to all of these comments and recommendations. EBPC agreed that the best strategy is to avoid disturbing highly reactive rocks and committed to considering this approach where appropriate. EBPC committed to correcting errors and inconsistencies in the ARD Management Plan and resubmitting it to NRCan and other regulatory authorities. EC recommended that a project-specific ARD Management Plan be developed including the following:

	▪ the results of geophysical work and sampling, and identification of specific areas containing sulphide-bearing rock presenting an ARD risk; ▪ a description of options for disposing sulphide-bearing rock off-site if necessary (e.g., scenarios involving significant quantities of rock); and ▪ a water quality monitoring program that describes sampling sites, outlines requirements for the collection of baseline and effects data (e.g., timing, parameters, frequency), and provides for a review of monitoring needs after one year of post-construction sampling and analysis. In response, EBPC indicated that the results of geophysical investigation would be presented to regulatory authorities as appropriate. EBPC provided discussion of options for disposal of sulphide-bearing rock off-site. EBPC indicated that groundwater and surface water quality monitoring was set out in its ESEA. EC also recommended that a post-construction review of plan effectiveness be conducted and the results reported. EBPC agreed to this recommendation. Health Canada made a recommendation regarding specific parameters to be analysed as part of groundwater monitoring. EBPC agreed with this recommendation. EBPC committed to: ▪ completing and submitting detailed geotechnical studies and related sampling to determine the areas of ARD potential to the Board, NRCan and any other appropriate regulating agency; ▪ submitting an updated version of their ARD Management Plan, based on NRCan's comments, to NRCan and the Board; and, ▪ undertaking a post-construction review of the ARD Management Plan and providing results to regulatory agencies.
Mitigation Measures	EBPC committed to the following: ▪ Conducting a drilling and sampling program with emphasis on bedrock areas near domestic water wells and in designated Watershed Protection Areas that present an acidic drainage risk ▪ Taking an inventory of water wells within 500 m and down-gradient of the acidic drainage risk zones ▪ Collecting baseline water samples for pH, aluminum (Al), iron (Fe), manganese (Mn), arsenic (As), copper (Cu), zinc (Zn), alkalinity, and sulphate for wells within 100 m of excavation zones in acid-generating bedrock and for watercourses in designated Watershed Protection Areas where the detailed RoW is within 250 m of a watercourse in acid-generating bedrock ▪ Carrying out excavation work and disposing of waste rock materials in accordance with appropriate regulatory guidelines, such as the *Nova Scotia Sulphide Bearing Material Disposal Regulations* ▪ Minimizing over-break of bedrock during excavation blasting ▪ Minimizing the extent of excavations in acid-generating bedrock areas ▪ Diverting surface water and shallow groundwater away from excavation in acid-generating bedrock areas ▪ Minimizing the volume of sulphide-bearing material requiring storage or disposal (e.g., by minimizing excavation, using excavated materials as backfill with capping where possible, and adjusting trench blasting activities to minimize over-breakage) ▪ Isolating the mineralized portion of the trench with impermeable fills ▪ Minimizing groundwater through flow along trenches using impermeable plugs or barriers ▪ Remediating any affected wells by deepening the well, using grouted casing or liners, or replacing the well and ▪ Engaging a qualified professional to conduct an initial screening for evidence of

<table>
<tr><td></td><td>acidic drainage (drop in pH or visual evidence of iron precipitate) within seven days of the implementation of acid rock mitigation
Additional details regarding ARD about mitigation measures to be used were provided by EBPC in its ARD Management Plan.</td></tr>
<tr><td>Monitoring</td><td>EBPC committed to the following.
▪ Pre-construction monitoring of all water wells identified within 500 m and down-gradient of the acidic drainage risk areas would be located and documented on appropriate maps.
▪ Pre-construction monitoring of all water wells within 100 m of Project RoW (when determined) and down-gradient of bedrock excavation zones in acidic drainage risk areas would have baseline water samples collected for pH, Al, Fe, Mn, As, Cu, Zn, alkalinity, and sulphate.
▪ Post-construction monitoring within ARD areas that coincide with residential wells along the preferred corridor, the nearest down-gradient residential well within 500 m of the RoW would be used as a monitoring well. This well would be checked on a quarterly basis for two years for general chemistry in order to identify any changes in groundwater quality that might be indicative of acidic drainage.
▪ Post-construction monitoring in areas where bedrock with ARD potential were exposed within 250 m of a watercourse within a designated Watershed Protection Area, quarterly monitoring for ARD indicator parameters would be done for two years for general chemistry in order to identify any changes in stream water quality that might be indicative of acidic drainage.</td></tr>
<tr><td>NEB Evaluation of Significance</td><td><table><tr><td>Frequency</td><td>Duration</td><td>Reversibility</td><td>Geographical Extent</td><td>Magnitude</td></tr><tr><td>High</td><td>3</td><td>Reversible</td><td>1</td><td>Low</td></tr></table>Adverse Effect
Not likely to be significant</td></tr>
</table>

Views of the Board

As a result of the concern from interested parties, RAs and FAs about the potential for acid rock drainage and its effects, if the Project were to receive regulatory approval, the Board recommends that the following condition be imposed:

- As part of the recommendation to submit an EPP outlined in section 7.2.1 above, the EPP shall address project-specific acid rock drainage mitigation measures.

Therefore, the Board has included a recommendation to this effect in section 9.2 as recommendation B(4).

The Board expects that the measures set out in the EPP to address ARD would be included in EBPC's revised ARD Management Plan, and that this Plan would be provided to NRCan, EC and other regulatory authorities being consulted on the EPP. The Board also notes that a post-construction review of the ARD Management Plan's effectiveness would be conducted and submitted to the appropriate regulatory agencies.

Given the proposed mitigation measures and the above recommendations of the Board, the Board finds that the Project is not likely to result in significant adverse effects as a result of ARD.

7.2.4.4 Loss of Wetland Function

Background/Issues	Eighty wetlands were identified during desk-top studies and field studies as occurring within the preferred corridor with approximately 800 ha of total area occupied by wetland habitat. EBPC submitted that studies conducted for the NB Power IPL and for the SJL contain sufficient biophysical information for the purposes of completing wetland functional analysis reports. EBPC completed additional wetland surveys in 2005 and 2006, the results of which were submitted to the Board, EC and NBDOE on 15 January 2007. These additional surveys provided the remainder of the information required to complete wetland functional analysis reports. Wetland function may be lost during various construction activities: site preparation, pipe installation, watercourse crossings and temporary ancillary structures and facilities. EC and NBDOE have set goals for no net loss of wetland function.
Mitigation Measures	EBPC committed to the following: ▪ Avoidance of wetlands by route selection, wherever practicable ▪ Limiting area of disturbance ▪ Developing a crossing and rehabilitation plan for wetlands, to be included in the EPP, that assesses alternative construction methods to minimize impacts to wetlands to protect wetland function ▪ Obtaining WAWA permits and following permit conditions, including compensation to ensure no net loss of wetland function ▪ Obtaining approval to blast from DFO and following DFO's blasting guidelines ▪ Maintaining water flow and drainage within or across wetland ▪ Using designated roadways and access; limit off-road activity ▪ Avoiding locating temporary work areas in wetland, where practicable ▪ Stockpiling surface wetland soils separately and then return them to wetland ▪ Avoiding seeding in and within 30 m of wetland ▪ Using cleaning stations for equipment and vehicles where required to reduce the spread and introduction of invasive species of plants ▪ Avoiding directing runoff water flow toward wetland ▪ Using erosion control measures ▪ Storing fuel at least 100 m from wetlands ▪ Refueling at least 30 m from wetlands ▪ Installing trench plugs in open trench to avoid water flow along the trench ▪ Restricting herbicide use during pipeline operation to fenced area of valve sites and using herbicide of short persistence and low ecological toxicity ▪ Using measures to address unauthorized access to the RoW by off-road vehicles (discussed in Table 7.2.4.2)
Monitoring and Follow-up Programs	EBPC committed to developing a follow-up and monitoring program for wetlands in consultation with regulatory authorities. EBPC recommended wetlands post-construction monitoring (typically at one, three, and five years after construction) to assess issues such as wetland hydrology, introduction of invasive plant species and use by ATVs. Beyond the wetland monitoring, operations and maintenance personnel would monitor the entire length of the pipeline system (including wetlands) to identify any issues. Details of monitoring and surveillance during operations and maintenance would be included in the

	Operations and Maintenance Manual. EC recommended that: ▪ a monitoring, mitigation and maintenance program associated with construction activities in wetland areas be undertaken, and that monitoring and maintenance continue as necessary until wetland functions are restored to a pre-construction state; and ▪ a plan for compensating for unavoidable loss of wetlands be prepared taking into account federal and provincial wetland conservation policies, as applicable. EBPC committed to meeting with EC and provincial representatives to discuss information gathered on wetlands. It also committed to discussing compensation for loss of wetland function with EC and the Province after the proposed five-year monitoring period. In its final argument, EC reiterated that wetland monitoring should continue until wetland functions are restored, as opposed to the five-year limit proposed by EBPC. EC also reiterated that a plan for compensating for unavoidable loss of wetlands be prepared, and was not satisfied with EBPC's commitment to only address losses identified following completion of a five-year monitoring program.
NEB Evaluation of Significance	Frequency: Low Duration: 1 Reversibility: Reversible Geographical Extent: 1 Magnitude: Low Adverse Effect Not likely to be significant

Views of the Board

If the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed.

- As part of the recommendation to submit an EPP outlined in section 7.2.1 above, the EPP shall address site-specific construction plans for wetlands where they cannot be avoided; and

- EBPC file with the Board for approval, at least sixty days prior to construction, follow-up programs as required by the CEA Act. A program shall be designed to verify the accuracy of the EA predictions and to assess the effectiveness of mitigation for wetlands as outlined in the Brunswick Pipeline Project ESEA (Volume 1, p. 350). Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The follow-up program shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up program shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations B (2), C and P.

In developing site-specific plans for wetlands in its EPP and in designing the follow-up program for wetlands, the Board expects that EBPC would consult with EC and NBDOE. It would be appropriate that the follow-up program schedule and associated reporting schedule be designed to address any effects that may endure beyond EBPC's proposed five-year monitoring period. The follow-up program should also set out a process for establishing compensation for unavoidable loss of wetlands identified during the implementation of the follow-up program.

Given the proposed mitigation measures and the above recommendations of the Board, the Board concludes that the Project is not likely to result in significant adverse effects to wetlands.

7.2.4.5 Biophysical Effects to Rockwood Park

<table>
<tr><td>Background/Issues</td><td>Biophysical effects in Rockwood Park would be similar to the biophysical effects throughout the RoW previously addressed in Table 7.2.3. However, concerns were raised by many interested people around effects specific to Rockwood Park. Among the comments received from the public, concerns were expressed regarding industrial development occurring in land designated for use as a park and potential effects in Rockwood Park on surface water, wildlife and caves.
FORP, as part of its evidence submitted to the Board, filed the following studies or reports:
▪ Rare aquatic vascular plants of Rockwood Park;
▪ Odonata of Rockwood Park;
▪ Atlantic Canada CDC Data Response – rare flora and fauna in study area;
▪ Geological Considerations vis-à-vis the proposed siting of a natural gas pipeline through Rockwood Park; and
▪ Status and Conservation of Dissolution Caves in Rockwood Park.
In response to FORP's evidence, EBPC indicated that it consulted with the Horticultural Society and the City, which together have responsibility for the Park. Consultation resulted in the proposal of specialized construction plans and improvements within the Park that would enhance public access and enjoyment in the future. EBPC also indicated that it is prepared to endow the Park with a grant to fund Park improvements and future Park operations should the preferred corridor be approved.</td></tr>
<tr><td>Mitigation Measures</td><td>EBPC committed to the following:
▪ Mitigation measures for minimizing environmental effects on biophysical elements consistent throughout the Project (refer to Tables 7.2.3, 7.2.4.1-7.2.4.4)
▪ Developing a specialized construction plan for the Park</td></tr>
<tr><td>Monitoring</td><td>EBPC committed to the following:
▪ Monitoring as described in section 7.1 and Tables 7.2.4.1 through 7.2.4.4
▪ Additional monitoring would be addressed in the EPP</td></tr>
<tr><td>Follow-up Programs</td><td>EBPC did not propose a follow-up program specific to Rockwood Park.</td></tr>
<tr><td>NEB Evaluation of Significance</td><td><table>
<tr><td>Frequency</td><td>Duration</td><td>Reversibility</td><td>Geographical Extent</td><td>Magnitude</td></tr>
<tr><td>Medium</td><td>2</td><td>Reversible</td><td>2</td><td>Low</td></tr>
</table>
Adverse Effect
Not likely to be significant</td></tr>
</table>

Views of the Board

In light of the concerns raised with respect to Rockwood Park, if the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed:

- as part of the recommendation to submit an EPP outlined in section 7.2.1 above, the EPP shall address a construction and reclamation plan for Rockwood Park with evidence demonstrating consultation with stakeholders; and
- EBPC shall file with the Board for approval, at least sixty days prior to construction, follow-up programs as required by the CEA Act. A program shall be designed to verify the accuracy of the environmental assessment predictions and to assess the effectiveness of mitigation used for the reclamation of Rockwood Park. Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The follow-up program shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up program shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations B (5), C and P.

Given the proposed mitigation measures and the above recommendations of the Board, the Board finds that the Project is not likely to result in significant adverse effects as a result of biophysical effects to Rockwood Park.

7.2.4.6 Disruption to Recreational Pursuits in Rockwood Park

Background/Issues	Rockwood Park is a popular destination for Saint John residents and visitors. In various seasons, Rockwood Park offers the following attractions: Kiwanis Playpark at Fisher Lakes; Rockwood Park Municipal Golf Course & Aquatic Driving Range; Rockwood Park Campground; Cherry Brook Zoo & Vanished Kingdom Park; beaches at Fisher Lakes and Lily Lake; hiking, biking, cross-country skiing, and running trails; picnic sites at Fisher Lakes and throughout the wilderness zone of the Park; Rockwood Stables & Turn of the Century Trolleys; and horseback riding.
Mitigation Measures	EBPC committed to developing a specialized construction plan for Rockwood Park in collaboration with the stewards of the Park and other stakeholders. During construction, trails that cross the RoW may be temporarily disrupted during pipe installation but the existing topography and surface would be restored to the extent practicable, and other mitigation measures would be implemented in consultation with the Saint John Horticultural Society, the City of Saint John (Leisure Services), and other stakeholders. Certain activities within or near the proposed pipeline RoW (e.g., campfires, excavations, installation of fence posts) would require that the Proponent be notified in advance of the

<table>
<tr><td></td><td>activity, in accordance with the OPR, to ensure that the activity does not compromise the integrity of the pipeline.
There would be no above-ground obstructions or features in the RoW that would limit access to any of the Park's trails or facilities.
The existing topography of the land within the Park adjacent to the power transmission line RoW would be restored to the maximum extent practicable.</td></tr>
<tr><td>Views of the parties</td><td>Numerous Intervenors, oral statement makers, and letters of comment raised serious concerns regarding the disruption to recreational pursuits in Rockwood Park including, for example: industrial development not enhancing a nature sanctuary, horse riding trails being negatively impacted by the pipeline, and use of trails with blasting, bulldozers and heavy equipment all around.</td></tr>
<tr><td>Views of EBPC</td><td>According to EBPC, activities that currently occur in the Park would not be altered after construction, and all recreational activities that currently occur in Rockwood Park, in any season, would be allowed to continue during the operation and maintenance phase of the Project.
EBPC stated that it is prepared to endow Rockwood Park with a grant to fund Park improvements and future Park operations, should the preferred corridor be accepted and the pipeline built.
EBPC argued that the environmental studies and mitigation regarding the protection of the environment, as well as the protection of members of the public using Rockwood Park, further the preservation of the current activities within Rockwood Park. As well, participation of the Park stakeholders regarding the restoration of the proposed RoW in Rockwood Park may serve to enhance the current activities taking place within the Park.</td></tr>
<tr><td>NEB Evaluation of Significance</td><td><table><tr><th>Frequency</th><th>Duration</th><th>Reversibility</th><th>Geographical Extent</th><th>Magnitude</th></tr><tr><td>Low</td><td>2</td><td>Reversible</td><td>1</td><td>Low</td></tr></table>Adverse Effect
Not likely to be significant</td></tr>
</table>

Views of the Board

The Board notes that some recreational pursuits in Rockwood Park would be temporarily disrupted during construction activities. These short-term disruptions would be minimized with the development, in collaboration with the stewards of the Park, of a specialized construction plan for Rockwood Park. The Board also notes that there would be minimal impacts on recreational pursuits during the operations phase of the pipeline, and it is even possible that there would be enhancements with the creation of a trust fund to provide an annual income for the Horticultural Society. Given the proposed mitigation measures, in particular the specialized construction plan for Rockwood Park, and the commitment by EBPC to establish a trust fund for the Horticultural Society, the Board finds that the proposed Project would not likely cause significant adverse effects to recreational pursuits in Rockwood Park.

7.2.4.7 Disturbance to, or Destruction of, Heritage Resources

Background/Issues	The Archaeological Services Unit (ASU) of the Heritage Branch of the NB Culture and Sports Secretariat administers archaeological resources in NB. Archaeological sites are considered to be non-renewable resources and the unauthorized disturbance of such resources may not legally take place except under strictly controlled conditions imposed by the terms of an Archaeological Field Research License, which is issued to qualified personnel by the provincial government through ASU. ASU is also responsible for approving or modifying recommended mitigation measures applied to archaeological and heritage resources. The archaeological survey work outlined in the ESEA is underway. One archaeological site has been recorded to date and the mitigation of that site has been initiated, in consultation with the ASU. This site, at Dennis Stream, has been visited by members of the MAWIW Environmental Response Team, who actively participated in the excavations. Further, reports of a Native burial ground at Point Pleasant were noted and this area was identified for archaeological testing. Testing is ongoing and results will be reported to the UNBI, MAWIW, the NEB and ASU. To date, no evidence of any burials has been encountered. The archaeology surveys are ongoing and will be completed this year or in the spring of 2007. It is anticipated that the results of these surveys will be submitted to the NEB and ASU prior to April 2007. Archaeological work undertaken in the spring of 2007 will be reported as it is completed.
Mitigation Measures	EBPC committed to the following: ▪ The entire length of the detailed route would be subject to a walkover and survey once the 30 m RoW is determined. Archaeological testing would also be conducted in areas where it is considered warranted. Where there are limitations in flexibility for watercourse crossing locations, each option would be tested prior to confirming the route. This methodology has been discussed and developed in conjunction with ASU, and is approved by the Province. This methodological approach would ensure that the majority of archaeological and heritage resources within the detailed route would be identified, recorded and mitigated prior to construction. ▪ If a significant archaeological or heritage resource were encountered within the RoW during the pre-construction survey, then appropriate mitigation would be developed in consultation with the provincial regulating agency (ASU) and implemented. ▪ Adjustment of the RoW would be considered as the preferred mitigation to avoid significant archaeological sites discovered during the detailed route. ▪ If avoidance of the resource is not practicable, then the archaeological or heritage site would be mitigated by recording, testing, and excavation, as determined by the archaeologist and in consultation with ASU. ▪ Provide opportunity for access to exposed rock to paleontologists. ▪ Areas where there are known archaeological or heritage resources located near to, but not within the boundaries of, the RoW would be demarcated and/or fenced, and the construction in the adjacent areas may require monitoring. ▪ EBPC would develop a set of archaeological protocols in the EPP to address any encounters with archaeological/heritage resources during construction, and would implement this protocol.
Monitoring	EBPC indicated that areas that still considered to have elevated potential for archaeological or heritage resources would be recommended for archaeological monitoring during the construction phase of the Project.

NEB Evaluation of Significance	Frequency	Duration	Reversibility	Geographical Extent	Magnitude
	Low	1	Irreversible	1	Low
	Adverse Effect				
	Not likely to be significant				

Views of the Board

If the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed:

- EBPC shall consult with the ASU of NB on further studies and a monitoring plan for areas with high potential for heritage resources, once the locations for the detailed right of way, facility sites and temporary work space have been determined. EBPC shall file with the Board, at least thirty days prior to construction:
  a. for approval, a report that documents how archaeological and heritage resources within the detailed route have been identified, recorded and mitigated;
  b. copies of any correspondence from, or a summary of any discussions with the ASU of NB regarding the acceptability of EBPC's report and proposed mitigation measures; and
  c. for approval, a copy of any proposed monitoring plan.
- EBPC shall notify the Board, at the time of discovery, of any archaeological or heritage resources and, as soon as reasonable thereafter, file with the Board for approval a report on the occurrence and proposed treatment of the archaeological/heritage resources, any changes to the archaeological/heritage monitoring plan, and the results of any consultation, including a discussion on any unresolved issues.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations F and J.

Given the proposed mitigation measures, the commitment by EBPC to complete archaeology surveys, the commitment by EBPC to consult with the ASU prior to construction on further studies and a monitoring plan for areas with high potential for heritage resources, and the above recommendations, the Board finds that the Project would not likely cause significant adverse effects on heritage resources.

7.2.4.8 Noise Impacts at Milford and Pokiok

Background/Issues	The major watercourse crossing of the Saint John River in urban Saint John would require HDD, which has the potential to cause an adverse environmental effect on sound quality. An HDD is planned to cross the Saint John River from Pokiok to Pleasant Point in the City of Saint John. The Saint John River HDD would occur 24 hours per day for approximately 20 weeks, during which relatively high sound pressure levels may be experienced on a more or less continuous basis. The typical equipment required consists of a drilling rig, electric mud pumps, portable generators, mud mixing and cleaning equipment, mobile cranes, forklifts, loaders, trucks, and portable light sets.
Mitigation Measures	EBPC committed to undertake a detailed noise mitigation study and develop detailed noise mitigation and monitoring plans specific to the areas potentially affected by the HDD activity, and would submit these plans to the NEB and Health Canada at least 90 days prior to the commencement of the proposed HDD activities. Additional mitigation measures to reduce the environmental effect of the Saint John River HDD activities on sound quality include: ▪ Further predictions would be conducted (based on the mitigation design) of drilling sound levels at the nearest residences prior to the commencement of HDD at the site. ▪ The drilling rig at the Saint John River site would be partially or fully enclosed as required, and/or noise barriers would be placed around the drilling site with adequate mass, height and length to attenuate noise to below 65 dBA at the nearest receptor. The enclosures would be set up with the required opening directed away from the nearest residences so that line of sight propagation of noise would occur away from the nearest residences. ▪ The arrangement of the drilling rig and other equipment, which are major sources of noise, would be designed to maximize the distance between this equipment and the nearest residences. ▪ All construction equipment used in the area would be maintained in good working condition according to the manufacturer's instructions. Mufflers that are in good working condition or upgraded silencers (if warranted) would be used. ▪ The use and movement of ancillary equipment would be minimized during nighttime hours. ▪ A noise mitigation design would be developed following the completion of the drill site layout and estimates of sound pressure levels (based on the mitigation design) at nearby noise sensitive areas to ensure adequate mitigation is in place prior to commencing HDD activities at the Saint John River site. ▪ A program would be in place for members of the public to contact representatives of the company and express any concerns about noise, and EBPC committed to addressing those concerns. EBPC indicated that temporary relocation would only be offered as a means of mitigation as a last resort.
Monitoring	EBPC indicated that following the installation of HDD equipment and noise control measures, follow-up noise monitoring would be conducted at the nearest residences to verify the effectiveness of the mitigation. Further mitigation would be implemented in the event of unacceptable noise levels and additional monitoring would be conducted to ensure acceptable noise levels prior to the commencement of 24-hour drilling. Additional noise monitoring or mitigation may be required to address any potential complaints from residents received by the NEB, NBDOE, or EBPC, particularly during construction activities. Noise monitoring would be required to verify the effectiveness of the noise mitigation for the HDD activities. Sound pressure levels would be monitored during HDD activities, during daytime hours at the nearest residence prior to the continuation of HDD activities on a 24-hour basis.

<table>
<tr><td></td><td>In addition, spot checks of noise levels would be conducted by EBPC at the nearest residences on a periodic basis during HDD activities, to monitor the effectiveness of the implemented mitigation and to provide a basis for implementing further actions aimed at preventing significant environmental effects during construction.</td></tr>
<tr><td>Follow-up Programs</td><td>EBPC committed to developing a follow-up program to assess the effectiveness of proposed mitigation for HDD Noise Management.</td></tr>
<tr><td>Views of the parties</td><td>Several Intervenors, oral statement makers, and letters of comment raised concerns regarding the disruption to residents of Milford and Pokiok; for example, parties disagreed that short-term noise impacts associated with the directional drill, specifically 24/7 for a 4 month period, would constitute a short period.
HC raised concerns regarding noise associated with HDD activities. In a letter dated November 3, 2006, HC identified six conditions that must be met by EBPC in order for HC to be satisfied that the proposed mitigation is adequate and all reasonable measures have been implemented in order to minimize the additional noise levels that would result from intruding construction noise from HDD activities. HC also provided comments on the possible Certificate conditions, and recommended that greater detail be provided in any Certificate condition regarding noise.</td></tr>
<tr><td>Views of EBPC</td><td>EBPC committed to developing a detailed noise mitigation plan for the Saint John River HDD activity in consultation with Health Canada and other appropriate regulatory authorities. The objective of the noise mitigation is to keep people living in proximity to the HDD comfortable.
EBPC's environmental consultants agreed that unmitigated noise from HDD activities at the Saint John River crossing could result in a significant adverse environmental effect to residents within 300 m (984 feet) of the crossing and possibly even beyond the 300 m radius. It is for this reason that extensive noise mitigation, based on sound pressure levels at the nearest residence to the crossing, was proposed in the ESEA and would be implemented throughout the duration of HDD activities. If mitigation were implemented such that sound pressure levels remained at a level that would not result in significant environmental effects to residents within 300 m of the noise source, EBPC expected that there would be no significant environmental effects to residents beyond the 300 m radius as sound due to a dominant source decreases with distance from the source.
EBPC consulted with HC regarding noise associated with the HDD activity and was in agreement with HC's comments and recommendations on this issue. EBPC stated that it was confident that its mitigation measures would ensure its operations do not conflict with the standards reflected in the applicable bylaws within the context of the construction of the Project. EBPC argued that the Board has extensive experience with HDD operations and, together with the input provided by HC, has established acceptable standards governing this activity. Comprehensive noise mitigation for the Saint John River HDD activity would be implemented as necessary to ensure no residual adverse environmental effects and to minimize disruption to daily living for residents of Milford and Pokiok.</td></tr>
<tr><td>NEB Evaluation of Significance</td><td>
<table>
<tr><td>Frequency</td><td>Duration</td><td>Reversibility</td><td>Geographical Extent</td><td>Magnitude</td></tr>
<tr><td>Medium</td><td>2</td><td>Reversible</td><td>2</td><td>Medium</td></tr>
</table>
Adverse Effect
Not likely to be significant</td></tr>
</table>

Views of the Board

If the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed:

- EBPC shall file for approval, at least ninety days prior to the start of the HDD activity proposed for the Saint John River Crossing, a detailed noise management plan containing information on day-time and night-time HDD operations at the drill exit and entrance sites, including but not limited to the following:

  a. ambient sound levels at noise-sensitive areas close to the HDD exit and entrance sites to establish a baseline for assessing potential noise impacts;
  b. predicted noise level at the most affected residences caused by the HDD without mitigation;
  c. proposed HDD noise mitigation measures, including but not limited to the following:

     - all technologically and economically feasible mitigative measures as presented in Section 5.1.7 of the Environmental and Socio-Economic Assessment (Jacques Whitford, 2006) and in the Resource Systems Engineering assessment.

     - the use of full enclosures on diesel powered units;

     - the use of quiet machinery (where feasible);

     - the undertaking of HDD activities during periods where residential windows would be expected to be closed (i.e., during winter months);

  d. predicted noise level at the most affected residences with implementation of the mitigation measures;
  e. noise contour map(s) showing the potentially affected residences at various noise levels;
  f. a noise monitoring program including locations, methodology and schedule;
  g. confirmation that residents potentially affected by HDD noise will receive contact information for EBPC in the event they have concerns about the HDD noise;
  h. a contingency plan with proposed mitigative measures for addressing noise complaints, which may include the temporary relocation of specific residents; and
  i. confirmation that EBPC will provide notice to nearby residents in the event that a planned blowdown is required and that planned

blowdowns will be completed during day-time hours whenever possible.

- EBPC shall file with the Board for approval, at least sixty days prior to construction, follow-up programs as required by the CEA Act. A program shall be designed to verify the accuracy of the Environmental Assessment predictions and to assess the effectiveness of mitigation for HDD noise management. Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The follow-up program shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up program shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations C, H and P.

Given the proposed mitigation measures, the commitment by EBPC to develop a detailed noise mitigation plan for the Saint John River HDD site with input from HC and the NEB, the commitment by EBPC to develop a follow-up program, and the above recommendations, the Board finds that the proposed Project and associated noise at Milford and Pokiok would not likely cause significant adverse effects.

7.2.4.9 Effects on the Current Use of Lands and Resources for Traditional Purposes by Aboriginal Persons

Background/Issues	Throughout project development, there were consultations regarding the Brunswick Pipeline with all NB Aboriginal organizations and communities recognized by the Government of Canada. An Aboriginal Relations Manager and organization liaison staff facilitated the consultation, which included extensive direct meetings with the Aboriginal organizations and open houses for the Aboriginal communities. To augment information gathered during the Aboriginal open houses regarding the traditional use of lands and resources within the preferred corridor, an Aboriginal firm, Aboriginal Resource Consultants, was contracted to carry out a TEK study. This study gathered Maliseet and Mi'kmaq historical knowledge of land, water and resource uses by Aboriginal people for traditional purposes in the project area. The TEK Study recommended continued site visits and continued communication of project information with Aboriginal leadership and community members.
Mitigation Measures	EBPC committed to the following: ▪ A copy of the TEK study was provided to the Maliseet and Mi'kmaq Peoples through their leadership. Further, an information dissemination strategy would be developed to ensure the leadership is kept informed on all developmental activities. ▪ A team of Aboriginal specialists would be engaged for a walk through of the RoW, once finalized in the summer of 2007, to "ground truth" any issues of concern and report on findings from this physical inspection to both the Proponent and the Aboriginal leadership.

<table>
<tr><td></td><td>▪ A strategy would be developed allowing for black ash harvested from Crown lands within the RoW to be stockpiled in an accessible location and made available to the Maliseet and Mi'kmaq.
▪ Response protocols would be developed to provide information exchange channels allowing for the reporting of any incidents of sites of significance to the Maliseet and Mi'kmaq.</td></tr>
<tr><td>**Monitoring**</td><td>EBPC was able to conclude formal agreements with both the UNBI and MAWIW. The agreements include provisions for environmental monitoring and protection of Aboriginal heritage and cultural resources.
During all construction phases where "green field" development is taking place, an Aboriginal monitor will be engaged, who has specific knowledge and experience related to traditional use and spiritual and ceremonial sites. This individual would be tasked with assisting and recommending to project personnel any findings during construction that may impact the Maliseet and Mi'kmaq people.</td></tr>
<tr><td>**Views of the Parties**</td><td>On 20 October 2006, the MAWIW Council of First Nations submitted a letter indicating that with the conclusion of twin agreements with M&NP and Emera, the MAWIW Council supported the Brunswick Pipeline application.
On 26 October 2006, UNBI filed a letter stating it is withdrawing as an Intervenor in the NEB hearings because it had reached a benefits agreement with EBPC.
An oral statement maker indicated that he was concerned that the Passamaquoddy had not been properly consulted since the pipeline falls in their territory, and that he read that the Passamaquoddy currently use plants harvested in and around the corridor for food and medicine.</td></tr>
<tr><td>**Views of EBPC**</td><td>EBPC stated that with respect to Aboriginal consultation, during early stages of Project planning, it engaged in consultations directed at securing Aboriginal support for and involvement in various project activities. Careful attention was paid to mitigating impacts upon traditional uses along the pipeline route and EBPC submitted that the process was open and inclusive. Consultations resulted in agreements with the Province's two Aboriginal organizations, both of whom indicated their support for the timely approval of the Project.
EBPC submitted that the conclusion in the Brunswick Pipeline ESEA, that there would not be any direct interaction between the Brunswick Pipeline Project and areas of traditional land and resource use that cannot be mitigated, was confirmed through the First Nation consultation program and the TEK Study. Therefore, EBPC anticipated that there would be no significant adverse environmental effects to current use of land and resources for traditional purposes by Aboriginal persons located in the area to be traversed by the pipeline.
This conclusion applied to all Aboriginal persons. While the Passamaquoddy Tribe is not a federally or provincially recognized organization, and therefore, were not included in the formal consultation process, EBPC submitted that should any of its members carry out traditional use activities in the preferred corridor, they would be similar uses, with similar resources, as the Mi'kmaq and Maliseet People of NB. There would not be significant adverse effects to current use of lands and resources for traditional purposes, if any, by members of the Passamaquoddy.</td></tr>
<tr><td>**NEB Evaluation of Significance**</td><td><table>
<tr><td>Frequency</td><td>Duration</td><td>Reversibility</td><td>Geographical Extent</td><td>Magnitude</td></tr>
<tr><td>Low</td><td>2</td><td>Reversible</td><td>2</td><td>Low</td></tr>
</table>
Adverse Effect
Not likely to be significant</td></tr>
</table>

Views of the Board

If the Project were to receive regulatory approval, the Board recommends that the following condition be imposed:

- EBPC shall file with the Board, at least sixty days prior to construction, an update on the implementation of the six recommendations identified in the TEK Study (July 2006).

Therefore, the Board has included a recommendation to this effect in section 9.2 as recommendation D.

The Board notes the steps that EBPC has taken to secure support from the Mi'kmaq and Maliseet People of NB.

With respect to the Passamaquoddy First Nation, the Board notes EBPC's position that it is likely that any members of the Passamaquoddy Tribe carrying out traditional use activities in the preferred corridor would have similar uses, with similar resources, as the Mi'kmaq and Maliseet People. While consultation with potentially affected parties is an expectation for consultation programs, the Board notes that there was very limited evidence submitted during the proceeding that the Passamaquoddy Tribe would be impacted by the Project, or that it used the preferred corridor for any traditional use activities; only a brief mention of this topic was made during an individual's oral statement. Nor did the Passamaquoddy Tribe appear before the Board in any capacity. In any event, the Board concurs with EBPC's view that any current use of lands and resources for traditional purposes by the Passamaquoddy people would likely be similar to that identified for other Aboriginal persons.

The Board notes that the potential impacts of the proposed Project to vegetation, fish and fish habitat, wildlife and wildlife habitat, and wetlands are not likely to be significant, as determined in other sections of this EA Report. These findings would further mitigate any adverse effects on the current use of lands and resources for traditional purposes by Aboriginal persons. In addition, the ability for Aboriginal persons to use the lands and resources for any traditional purposes could be temporarily impacted by construction activities but would not likely be significantly impacted during the operations phase of the Project. As a final point on this topic, the Board recognizes EBPC's commitment to establishing a process through which any issues, including those that may be raised by the Passamaquoddy, could be communicated and considered by EBPC through its Aboriginal Manager.

Given the proposed mitigation measures and the above recommendation, the Board finds that the proposed Project would not likely cause significant adverse effects on the current use of lands and resources by Aboriginal people for traditional purposes.

7.2.4.10 Potential Pipeline Leak or Rupture, and Potential Associated Fire

EBPC noted the potential for accidents and malfunctions to occur during the operation and maintenance of the Project, and addressed the potential for pipeline ruptures or leaks. Many of the comments received from the public regarding this Project were concerns about consequences of a pipeline leak or rupture and potential associated fire, concerns about access to communities in the event of an emergency and the capacity of first responders to handle an emergency.

EBPC's Environmental Management Framework is described in section 7.2.1 above. Several of the components of this framework would be applicable to preventing and responding to a pipeline leak or rupture. As part of EBPC's Pipeline Design and Quality Assurance Program, the Pipeline would be designed in accordance with the CSA Z662 standard and quality assurance would be used to reduce the probability of material defects. EBPC's Environmental Protection and Safety Management Program would include a Pipeline Integrity Program and routine pipeline monitoring and surveillance.

EBPC submitted that its Emergency Preparedness and Response Program would address: emergency response training; the scope and frequency of emergency response exercises; continuing education programs for first responders and Emergency Planning Zone (EPZ) residents; and, a formal liaison program for both lead and supporting government agencies. In order to support this program, EBPC committed to conducting a risk assessment upon completion of the detailed routing to determine the size of the EPZ for the pipeline.

EBPC submitted that its Field Emergency Response Plan (ERP) would be comprehensive and would: identify arrangements made to respond to pipeline incidents, including any mutual aid agreements made with outside agencies; outline roles and responsibilities related to emergency response; define notification and reporting requirements for incidents; and provide guidelines and site-specific emergency response procedures for operation and maintenance staff and first responders. EBPC committed to developing its ERP in consultation with the following lead agencies early in 2007:

- Transportation Safety Board of Canada;
- National Energy Board;
- New Brunswick emergency management organizations (EMO);
- Saint John EMO;
- Provincial Fire Marshall;
- Provincial and Municipal 911 Agencies;
- RCMP;
- Saint John City Police and Fire Department;
- Rural fire departments and volunteer fire brigades; and
- Ambulance brigades.

EBPC also committed to filing the ERP with the NEB well in advance of obtaining final leave of the Board to operate the pipeline.

Further, EBPC committed to implementing a continuing education program for first responders (i.e., fire departments, police, emergency management organizations) that would include the assignment of roles and responsibilities and chain of command for emergencies along the pipeline route, conducting emergency response training and mock emergency exercises, and educating applicable emergency response agencies.

EBPC committed to implementing a public awareness and education program with the intent of alerting the public of the requirements and restrictions associated with activities conducted in and around the pipeline RoW.

In response to questions from the Board regarding the location of isolation valves, emergency response capability within each line segment and reliability of the isolation valves, EBPC submitted that the Brunswick Pipeline has been designed to Class III requirements throughout its entire length within the City of Saint John in order to offer the pipeline added protection.

EBPC indicated that valve site locations were chosen on the basis of proximity to commercial power and telephone service as well as being of sufficient size to allow for the installation of all necessary infrastructure. A further consideration in the location selected for each isolation valve was year-round access by company personnel. EBPC submitted that each location provides good year-round access for both normal maintenance and for emergency response.

EBPC indicated that line block valves would use a gas-over-hydraulic actuator for closure and that this type of actuator has proven to be highly reliable with a ready fuel source (natural gas pressure within the pipeline) for actuation.

The worst case incident associated with the proposed facilities, as described by EBPC, would be a full rupture of the operating pipeline and subsequent ignition of the venting natural gas. In the event of such an incident, EBPC indicated that the line block valves immediately upstream and downstream of the line break would be closed by EBPC personnel to isolate the damaged section of pipeline from the remainder of the pipeline system. The damaged section would vent rapidly and EBPC personnel and local first responders would then continue with the execution of their respective emergency response procedures.

In light of the preferred corridor being in proximity to schools, a hospital, various businesses, and various communities, many interested people raised concerns regarding EBPC's capability to respond to an emergency and gain access to their communities or other existing infrastructure.

In addressing these concerns, EBPC submitted that once an EPZ is determined, EBPC would work to develop an accurate database of occupied structures within the EPZ. Residents within the EPZ would be contacted through EBPCs Continuing Education Program. This program would provide information to residents within the EPZ on pipeline location, potential emergency situations, safety procedures, what to expect in the event of an emergency and the respective roles of the public, company personnel, first responders (such as fire departments), and EMOs.

In the event of a serious pipeline incident requiring evacuation, EBPC indicated that the evacuation itself would be led by first responders and EMOs, including the selection and coordination of sheltering locations, incident command centers, roadblocks, etc.

Milford area residents, in particular, raised concerns regarding emergency access to their community as the Lou Murphy overpass is the only access in and out of this area, and the pipeline corridor passes close to this overpass.

In addressing these concerns, EBPC indicated that public access to the Milford area would not be impeded in any way during the construction or operation of the Brunswick Pipeline. Furthermore, EBPC indicated that it has been assured by J.D. Irving Limited that access would be provided across its lands for emergency response vehicles and personnel should the existing access (Greenhead Road) be impeded by a pipeline incident. EBPC confirmed that J.D. Irving Limited personnel and equipment are on site 24 hours a day and could quickly open the gates for emergency assess.

EBPC addressed concerns of Intervenors with respect to public notification in the event of an emergency and areas with limited access by committing to work with first responders and EMOs to adopt, promote, or help develop methods to notify the public and to identify areas with limited access and consider alternate routes. However, EBPC noted that primary responsibility in the event of a public emergency lies with first responders.

EBPC also noted that first responders have the ability to access property in emergencies in ways that would not normally be available to the public. The arrangement reflected in the letter with J.D. Irving, for example, ensures that should City of Saint John fire trucks, police cars or emergency vehicles appear at the J.D. Irving plant gate urgently seeking access to the Milford area, they would be able to readily access that community.

In response to possible Certificate conditions circulated for comment in advance of the oral portion of the hearing, EBPC provided comments to the Board on a possible condition requiring an emergency response exercise be conducted within six months after commencement of operation. According to EBPC, it discussed the draft conditions with first responders and all parties agreed that an emergency response exercise should be conducted, but that it should be a table top exercise with the objectives of:

- verification of respective roles and responsibilities;
- verification of notification matrix; and,
- verification of practices and procedures.

EC recommended that specific elements be included in EBPC's emergency prevention and response plans. EBPC agreed to EC's recommendation.

EC also recommended that emergency prevention and response plans be consistent with the CSA publication, *CAN/CSA-Z731-03 Emergency Preparedness and Response* (CSA-Z731-03) and the *2004 Emergency Response Guidebook*. EBPC responded that its ERP would be consistent with CSA-Z731-03 and the OPR.

NEB Evaluation of Significance	Frequency	Duration	Reversibility	Geographic Extent	Magnitude
	I	1	Irreversible	1	High
	Adverse Effect				
	Not likely to be significant				

Views of the Board

EBPC's proposed Environmental Management Framework includes programs aimed to prevent a leak or rupture. In the event of a leak or rupture, EBPC has set out the programs it would have in place to respond to emergencies. These programs would be aimed at eliminating or minimizing the negative effects of a leak or rupture and include cooperating with first responders and consideration of access to communities.

With respect to EBPC's comments on the proposed condition to conduct a table top emergency response exercise, the Board concludes that EBPC should conduct a full emergency response exercise within six months of commencement of operation of the Pipeline. The Board expects that EBPC, in organizing its emergency response exercise, would identify critical locations, for example, where access and egress by first responders may be impeded, and would focus its exercise upon those locations.

The Board is of the view that table top exercises can be very effective in testing certain elements such as communications systems, the effectiveness of continuing education programs, training programs, roles and responsibilities and parts of the ERP. However, table top exercises typically would not test elements such as the actual coordination and activation of a field response, first responders and company personnel knowledge and use of equipment, site security and site layout, to name a few.

With respect to EC's recommendation that emergency prevention and response plans be consistent with the *2004 Emergency Response Guidebook*, the Board notes that EBPC committed, and is required, to meet the provisions of the OPR, including requirements for emergency preparedness and response programs. In determining compliance with the OPR's emergency preparedness and response requirements, the Board references CSA-Z731-03 and other appropriate industry standards and documents, which could include the *2004 Emergency Response Guidebook*. Companies may also directly reference documents, such as the *2004 Emergency Response Guidebook*, to the extent that they are relevant to the company's emergency preparedness and response program.

If the Project were to receive regulatory approval, the Board recommends that the following conditions be imposed:

- EBPC shall file with the Board, at least sixty days prior to operation, an Emergency Procedures Manual (EPM) for the Project and shall notify the Board of any modifications to the plan as they occur. In preparing its EPM, EBPC shall refer to the Board letter dated 24 April 2002 entitled "Security and Emergency Preparedness Programs" addressed to all oil and gas companies under the jurisdiction of the NEB.

- EBPC shall file with the Board, at least sixty days prior to operation, evidence of consultation with stakeholders identified in the EPM, including a summary of any unresolved issues identified in consultations, and evidence that the EPM addresses, to the extent possible, any issues raised during consultation.

- Within six months after commencement of operation of the Project, EBPC shall conduct an emergency response exercise with the objectives of testing:

    - emergency response procedures;
    - training of company personnel;
    - communications systems;
    - response equipment;
    - safety procedures; and
    - effectiveness of its liaison and continuing education programs.

    EBPC shall notify the Board, at least thirty days prior to the date of the emergency response exercise, of the following:

    - the date and location(s) of the exercise;
    - the participants in the exercise; and
    - the scenario for the exercise.

    EBPC shall file with the Board, within sixty days after the emergency response exercise, a report on the exercise including:

    - the results of the exercise;
    - areas for improvement; and
    - steps to be taken to correct deficiencies.

- Within six months after commencement of operation of the Project, EBPC shall file with the Board a description of the company's emergency response exercise program, including:

    - the frequency and type of exercises (full-scale, table-top, drill) it plans to conduct; and
    - how the results of any emergency response exercises will be integrated into the company's training and exercise programs.

> Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations K, L, M, and N.
>
> Given the Environmental Management Framework and the above recommendations, the Board concludes that it is unlikely that the Project would result in a pipeline leak or rupture leading to a fire. Therefore, the Board finds that the proposed Project would not likely cause significant adverse effects as a result of an accident or malfunction.
>
> Further consideration of the evidence is required by the Board in order to fulfill its mandate under the NEB Act, which will form part of the content of separate Reasons for Decision.

7.3 Cumulative Effects Assessment

7.3.1 Scope of the Project

During the comment period on the draft EA Scoping Document, the NEB received requests to expand the scope of the Project to include the Canaport™ LNG Terminal. The complete Board ruling is attached as Appendix 4. Related to the LNG Terminal, the Board ruled that

> …the Canaport™ LNG Terminal has already undergone an environmental assessment by federal authorities under the CEA Act and by the Province of New Brunswick under provincial environmental assessment regulations. Since the LNG Terminal has already been the subject of a recent environmental assessment, the Board is of the view it should not include the Canaport™ LNG Terminal or the LNG tanker activity in the scope of the project for the environmental assessment of the Brunswick Pipeline Project. To do otherwise would be contrary to one of the CEA Act's stated purposes, that being the elimination of unnecessary duplication in the environmental assessment process. In addition, assessment of a project under the CEA Act is to occur at the proposal stage. The LNG Terminal was assessed at the proposal stage and is now under construction.
>
> However, within the scope of the assessment for the Brunswick Pipeline Project set out in the draft document, the terminal and tanker traffic can still be considered to the extent that they are relevant as cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out.

7.3.2 Views of EBPC

EBPC outlined the following sequential framework that it used for the assessment of project-related cumulative environmental effects in consideration of the requirements of the CEA Act and the NEB Filing Manual:

- Describe the spatial and temporal boundaries used to assess cumulative environmental effects.
- Describe the residual environmental effects of the Project.

- Describe other past, present, and likely future projects and activities, and the potentially measurable residual environmental effects of other projects and activities that may interact with the Project.
- Identify the potential interactions between the environmental effects of the Project with the environmental effects of the other projects and/or activities (cumulative environmental effects).
- Describe general and specific mitigation measures that are technically and economically feasible.
- Evaluate the significance of the resulting cumulative environmental effects.

EBPC listed the identified residual environmental effects of the Project in table 7.4.1 of its ESEA. Although residual environmental effects may occur during accidents, malfunctions and unplanned events, only those that are likely to occur (pursuant to the CEA Act) were carried forward into the cumulative environmental effects assessment.

EBPC indicated that it consulted with the NBDOE and the CEA Agency in selecting current and future projects that may have environmental effects that interact with those of the Project. Other projects were selected based on their proximity to the Project, the possibility of interactions with the environmental effects of the Project, and the likelihood of the other project(s) being carried forward (i.e., the project is registered with the Province under the New Brunswick *Clean Environment Act* or listed on the Canadian Environmental Assessment Registry). The spatial boundaries of the cumulative environmental effects assessment were Saint John County and Charlotte County.

EBPC submitted that it selected current and future activities (e.g., hunting and fishing) based on public and regulatory consultation, and the professional observations and opinions of members of the Jacques Whitford study team, its consultants for the ESEA.

Within its assessment of cumulative effects, EBPC identified land use actions and global actions as projects and activities with environmental effects that may act in combination with the residual environmental effects of the Project. Land use actions considered by EBPC included adjacent activities, existing RoWs, urbanization, and planned development projects. Adjacent activities included forest resource use, agricultural land use, watershed protection areas, rural residential land use, hunting, and fishing. Planned development projects included the Irving Oil LNG Marine Terminal and Multi-purpose Pier, the Irving Oil LNG and Marine Terminal Pond and Wetland Infilling, the Canaport™ LNG Terminal, and the Red Head Secondary Access Road along with 27 other projects in Charlotte County and Saint John County. The global actions focused on by EBPC were those having measurable environmental effects in the vicinity of the Project (i.e., regional air quality as a measurement of the cumulative emissions of global burning of fossil fuels acting on the regional airshed).

When asked by Mr. Thompson of FORP about whether a planned new oil refinery in the Red Head Mispec area was considered in the cumulative effects assessment, EBPC indicated that it was not considered. The CEA Act requires that you consider projects that are likely to take place. At the time of the ESEA, that project was not even known. EBPC submitted at that point, that project was just an idea.

EBPC identified potential interactions of the Project with the other projects and activities and then evaluated the significance of the resulting cumulative environmental effects. Potential interactions of effects were identified for:

- the atmospheric environment;
- water resources;
- fish and fish habitat;
- vegetation;
- wetlands;
- wildlife and wildlife habitat;
- land and resource use;
- infrastructure and services; and
- labour and economy.

For all of the cumulative environmental effects identified, EBPC predicted that the cumulative environmental effects of the Project in combination with other past, present and future projects and activities would not be significant, as measured against the criteria for significance it had identified. Therefore, no additional mitigation was recommended for minimizing the potential cumulative environmental effects of the Project.

Air Emissions

In response to concerns expressed by parties about cumulative effects of air emissions, EBPC referred to the evidence in its application and provided additional evidence on this topic. EBPC submitted that air emissions during construction of the pipeline would include carbon monoxide (CO) and carbon dioxide (CO_2) emissions from construction equipment exhaust, welding procedures, and clearing activities if wood waste materials are burned on the RoW. Air emissions may also result during initial purging of the pipeline. EBPC provided an estimate of the forest loss in the City of Saint John in terms of a CO_2 sink and its air filtering capacity. EBPC concluded that there would be a negligible loss in CO_2 sink and filtering capacity from these areas by the removing of vegetation.

EBPC noted that during operation, natural gas (methane) emissions would occur during system blowdown and system purging, if required. Methane emissions would also include fugitive emissions due to venting from pneumatic devices, valve maintenance, launcher/receiver barrels, and meter stations. CO and CO_2 emissions would occur from the exhaust of maintenance vehicles and equipment. EBPC provided estimates of the quantity of fugitive methane emissions from the pipeline.

The standard mitigation that would be applied by EBPC for air emissions is outlined in Table 7.2.3.

In its evidence, EBPC identified Canadian and NB ambient air quality objectives. There are currently no air quality standards or guidelines for concentrations of greenhouse gases (GHG) in ambient air, nor are there any emission limits with respect to GHG releases from point sources on a local basis.

EBPC submitted that the Project itself would result in very low emissions of GHGs during the construction, and operation and maintenance phases. EBPC indicated that the estimated average fugitive GHG emissions from the Project of 8 579 tonnes CO_2 e/year equates to 0.04% of the provincial total. Compared to Canada's total in 2003 of 740 000 000 tonnes CO_2 e/year, the project would represent 0.001%.

EBPC concluded that cumulative effects on the atmospheric environment would not be significant because:

- cumulative contributions of air contaminants are not likely to result in an exceedance of the *NB Air Quality Regulation – Clean Air Act*, and would be temporary; and
- the Project would result in a relatively small loss of forest productivity (a carbon sequestration opportunity), a maximum of approximately 0.0004% of the Crown timber licenses it passes through, and during operation and maintenance, the RoW would be allowed to revegetate with the exception of removal of trees greater than approximately 1.5 m in height.

EBPC submitted that there are no GHG emissions of significance from the construction and operation of the Brunswick Pipeline. EBPC would employ various techniques and practices during construction and operation of the pipeline to minimize the release of GHG emissions. EBPC therefore concluded that any added or cumulative environmental effects would be negligible.

7.3.3 Views of the Parties

Interpretation of Cumulative Effects Assessment

The Eldridge-Thomases suggested that cumulative environmental effects that are likely to result from the Project in combination with other projects or activities, such as the LNG Terminal, tanker traffic and additional compressors on the M&NP US pipeline, are relevant. The effects suggested by the Eldridge-Thomases in the context of cumulative effects included:

- reduced tax revenues available to fund important environmental programs in the City;
- negative impacts upon the important fishery in the Bay of Fundy, the popular cruise ship industry from which Saint John enjoys great benefit, the growing water-based tourism adventure industry (whale-watching, sea kayaking, deep sea fishing), private pleasure boating, and the scheduling of cargo ships and ferry traffic destined for the Port of Saint John;
- the possibility of a ship strike and mortality of a member of the very small remaining eastern Right whale population, which summers and rears its young in the Bay of Fundy;
- the addition of more CO_2 and other pollutants into the air on prevailing winds, that would be emitted by the extra compressors installed in order to carry extra volumes from the Project on the M&NP U.S. pipeline.

The Eldridge-Thomases concluded that taken together, the combined LNG plant, tanker traffic and associated pipeline components would incrementally add to the load on the local airshed, so that there is no net benefit from these projects, when consideration is given to who benefits from these emissions, and who bears the cost.

During the oral portion of the hearing, Dr. Thomas wanted to pursue further questioning on effects of tanker traffic within the context of cumulative effects, resulting in a ruling from the NEB that is attached as Appendix 8.

The Eldridge-Thomases argued that the NEB's ruling precluded inquiry that could have addressed the potential for, as a result of the Project, incremental increases in tanker traffic, increased CO_2 emissions from the LNG Terminal, or increased levels of other pollutants related to the regassificiation of LNG. They also argued that the artificial separation of the LNG Terminal project and the Brunswick Pipeline Project make rational planning of projects and rational energy policy virtually impossible. The Eldridge-Thomases argued that an LNG plant with an export pipeline must result in more gas processing at the plant than the LNG plant with no export pipeline, and associated environmental effects would result. They submitted that it is unclear when projects, such as a recently announced second oil refinery, should be included in cumulative effects assessment. The Eldridge-Thomases believe that the LNG plant and pipeline should undergo a joint environmental assessment.

Cumulative Effects of Air Emissions

The Pembina Institute (Pembina), on behalf of Ms. Teresa Debly, submitted that examining a natural gas pipeline as if it operates independently of natural gas production, transportation, and liquefaction/gasification effectively ignores the true broader impacts of such a Project's operations. It indicated that the NEB's scoping document makes direct reference to tanker traffic's relevance as a cumulative impact. Pembina understood this as tanker-related transportation activities. Pembina submitted that, by extension, other life-cycle activities must be considered as well. Therefore, Pembina considered the air emissions assessment it conducted to be consistent with the intent and requirements of the CEA Act.

Ms. Debly submitted Pembina's report on life-cycle air emissions of the Project. The spatial scope of Pembina's air contaminant emissions assessment included the Canaport™ LNG Terminal and the pipeline between the Terminal and the western boundary of the City of Saint John in order to focus on the Saint John airshed. The spatial scope of Pembina's GHG emissions assessment included the entire life-cycle of all activities associated with the pipeline: the manufacture of the materials in the pipeline, producing the natural gas, compressing/cooling the gas, transporting the gas, transferring the gas, transmitting the gas through the pipeline, and end use (combustion assumed) of the gas.

Pembina concluded that the absolute air contaminant emissions and GHG emissions of the construction, operation and maintenance, and decommissioning of the pipeline proper are not expected to generate significant adverse impacts on the environment or human health if examined independently of all other industrial activity in the Saint John area.

Based on its analysis, Pembina concluded that when the cumulative effects are considered, the Project and related activities may serve to exacerbate the air quality problems already experienced by the residents of Saint John. It also concluded that no single GHG source in Canada constitutes a significant proportion of Canada's total emissions; it is the accumulation of all sources that puts Canada among the most carbon-intensive countries in the world. The GHG emissions associated with the Project must be considered within NB and Canada's overall strategies.

EC submitted that there are numerous opportunities for reducing GHG emissions. Some best practices for reducing methane emissions from pipelines are described in the *Compendium of Methane and CO_2 Emission Reduction Measures for the Natural Gas Industry* and in the *Handbook for Estimating Methane Emissions from Canadian Natural Gas Systems*, and include the following:

- pre-installation of connected tees at any site with possible future service potential (to avoid line shutdowns);
- safe use of hot tapping or other techniques for future connections, or sleeve repairs for incidents;
- leak detection and repair programs, with regular maintenance checks of valves and fittings;
- state-of-the-art automatic closing valves should an incident occur;
- pipeline pigging practices and system gas control;
- optimization of pipeline system operation to avoid methane venting; and
- staff training and awareness.

EC encouraged EBPC to estimate GHG emissions from all project phases (e.g., installation, commissioning, operation, maintenance) and sources, consider and implement best practices available for GHG emissions reduction, and verify the effectiveness of these efforts.

Given public concern about this issue, HC recommended a contingency plan with proposed mitigative measures be created in the event that members of the public complain about localized air quality issues during pipeline construction. This would be particularly important if there are many residences within 300 m of the RoW (as the report indicates that any adverse effects are expected to be localized within 300 m of the RoW). Potential mitigative measures could include work slow-down or stoppage.

7.3.4 EBPC response to parties

In response to Pembina's analysis, EBPC indicated there are no GHG emissions of significance from the construction and operation of the Project. EBPC would employ various techniques and practices during construction and operation of the pipeline to minimize the release of GHG emissions. In addition, to the extent that customers in Canada or the US use natural gas from the Brunswick Pipeline to displace more carbon intensive fossil fuels, the resultant emissions of GHG may be reduced.

In response to EC's requests, EBPC provided average or typical annual fugitive methane emission rates for the Project and, from this, estimated the total annual GHG emissions expected from the Project. In addition, EBPC committed to ensuring pipeline operations staff be trained on the best practices referred to by EC and indicated that these best practices would be addressed in EBPC's Environmental Protection and Safety Management Plan.

In response to HC's recommendation, EBPC replied that the magnitude of emissions resulting from construction, and operation and maintenance of the Project is expected to be very small in comparison to emissions from other sources in the assessment area, and the potential environmental effects to ambient air quality resulting from the Project are not expected to be discernible from current levels. Any short-term, measurable environmental effects to air quality are likely to be localized to the specific area being worked on during construction, and relatively localized to the project area during operation and maintenance. EBPC has committed to mitigative measures to reduce air contaminant emissions that would be described in further detail in the EPP, which would be provided to the NEB and Province of NB for review and comment prior to its implementation.

An Intervenor asked EBPC about the potential for larger volumes of LNG arriving by ship at the Canaport™ Terminal as a result of the Project. EBPC submitted that there are no changes as a result of the Project to the design or capacity of the Canaport™ LNG Terminal from that described in the environmental impact statement (EIS) for the LNG Terminal, and there would be no incremental emissions from the LNG Terminal and no incremental tanker traffic at the Canaport™ LNG Terminal as a result of the pipeline.

Views of the Board

During the course of the proceeding, the NEB issued a ruling that discussed how cumulative effects assessments are carried out in the Board's process. This ruling is attached as Appendix 9 (NEB Ruling 7, A-27).

The NEB also issued two rulings related to the scope of the Project being assessed. The first ruling was attached to the Environmental Assessment Scoping Document and is attached as Appendix 4. The second ruling was issued during the oral portion of the hearing, and is attached as Appendix 8 (Dr. Thomas Request to Revisit the Scope of the Project). The Board's rulings were consistent in excluding the Canaport™ LNG Terminal and the LNG tanker activity from the scope of the Project for the environmental assessment of the Brunswick Pipeline Project since the Terminal has already been the subject of a recent environmental assessment, but in allowing consideration of the Terminal and tanker traffic to the extent that they are relevant as cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out.

Within the framework set out in these rulings, the initial step of identifying residual effects of the Project being assessed considers only residual effects of the Brunswick Pipeline Project, with the scope of the Project defined in the Environmental Assessment Scoping Document included in Appendix 4. The evidence before the Board indicates that there would be no changes as a result of the Project to the design or capacity of the Canaport™ LNG Terminal from that described in the EIS for the LNG Terminal. There is no evidence that there would be any activity within the Bay of Fundy as part of the Project, and therefore there would be no effects on or from boating or shipping in the Bay. Consequently, effects on boating or shipping in the Bay are not relevant to the cumulative effects assessment. Effects from boating or shipping, including tanker traffic, are only relevant as effects of other projects or activities, discussed further below. Tax revenues are not environmental effects, and therefore are not considered as part of the EA of the Project.

With respect to other projects to consider in a cumulative environmental effects assessment, the NEB has ruled in the past that the other projects considered in a cumulative effects assessment cannot be hypothetical.[20] The Courts have said that the decisions of RAs are not required to "consider fanciful projects by imagined parties producing purely hypothetical effects".[21] The Board is of the view that EBPC's methods for identifying other projects for consideration in the cumulative effects assessment were appropriate.

The context in which effects of other projects or activities are considered is when the effects of the other projects or activities act in combination with the residual effects predicted for the Brunswick Pipeline Project upon a biophysical or socio-economic element. Effects on fish and fish habitat and on the atmospheric environment, as well as effects on other biophysical and socio-economic elements, have been considered in this context.

Given the minimal project-related emissions that could affect air quality and their short-term nature, the Board is satisfied that any residual emissions that could combine with emissions from other projects and activities to act cumulatively would be negligible and not likely to be significant.

The Board notes that EBPC defined a significant residual adverse environmental effect on air quality in terms of GHG emissions as one that results in a substantive increase to provincial releases (i.e., >1% of total provincial GHG emissions, expressed as CO_2 equivalents). EC submitted that without sufficient explanation or reference to the significance or validity, that this criterion is arbitrary and bears no special significance.

The Board notes that, at the present time, there are no defined criteria to measure significance in relation to GHG when considered in an environmental assessment. However, comparisons to provincial or national emissions levels can provide a useful context for evaluating projects. While no specific criterion for significance has been established, considering the GHG emissions of the Project compared to provincial and federal levels of GHG emissions, the Board is satisfied that the GHG emissions of the Project are very low. As a result, the incremental effects of the GHG emissions of the Project are not likely to be significant.

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[20] Alliance, *supra* note 4 at page 164, and Sable, *supra* note 4 at page 53.

[21] *Bow Valley Naturalists Society* v. *Canada (Minister of Canadian Heritage)*, [2001] F.C.J. No. 18 (F.C.A.) at para. 75.

With respect to other potential cumulative environmental effects, the Board notes that the discussion of some of the environmental effects earlier in this Report have taken into account the effects of other projects and activities. For example, the consideration of effects from increased access by ATVs and effects on wetlands already considers the existing environment, including the effects that have been experienced from past projects and activities. The discussion of the effects of noise took into account the noise that would be experienced as a result of the Project combined with other projects and activities at the time of construction. Therefore, these effects have not been discussed further within this section.

Given the nature of the Project, EBPC's proposed mitigation measures, the recommendations of the Board, and the limited extent of any residual effects, the Board finds that significant adverse cumulative effects of the Project are unlikely.

7.4 Capacity of Renewable Resources

Pursuant to subsection 16(2) of the CEA Act, this EA included consideration of the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future.

7.4.1 Views of EBPC

EBPC submitted that the capacity of renewable resources likely to be affected by the Project to meet the needs of the present and those of the future was considered during its evaluation of significance for each of the environmental effects identified and evaluated.

EBPC identified and analyzed environmental effects on renewable resources including the atmospheric environment (air quality, acoustic environment), water resources, fish, vegetation, wetlands, and wildlife. EBPC's ESEA also identified and analyzed effects of the Project on land and resource use, such as residential, recreational, and commercial land use, as well as forestry and agriculture.

7.4.2 Views of the Parties

No comments were made by other parties specifically with respect to the capacity of renewable resources that are likely to be significantly affected by the Project to meet the needs of the present and those of the future. Comments provided by parties to the hearing in the context of specific effects on environmental components have been addressed in the environmental effects analysis in sections 7.1 through 7.3.

Views of the Board

> The Board notes that for each of the renewable resources potentially affected by the Project, various sections of this Report provide a consideration of whether significant adverse effects to the "capacity" of that resource are likely to occur. The nature of potential effects to the capacity of renewable resources was considered along with criteria for evaluating significance, such as the length of time for recovery.
>
> The Board finds that given the nature of the Project, the mitigation measures that would be implemented and the recommendations of the Board, the Project is not likely to cause significant adverse environmental effects on renewable resources.

7.5 Follow-Up Program

A "follow-up program" under the CEA Act is defined as "a program for verifying the accuracy of the environmental assessment of a project, and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project."

The NEB must recommend a follow-up program for the Project as part of this EA.

EC recommended that a follow-up program should specify sites at which monitoring was conducted. Baseline data should be collected prior to clearing to enable future comparisons with follow-up data, and to facilitate planning for a decommissioning and site restoration phase. Monitoring should continue until it is determined by the NEB that the environmental component under study has been restored or the particular impact has been mitigated in a satisfactory manner.

Views of the Board

> Baseline information is required in order to carry out a follow-up program, and therefore the collection of appropriate baseline data should be a consideration in the design of a follow-up program. Based on the nature of the environmental component, potential environmental effects of the Project, and the follow-up studies planned, the design of the follow-up program should also establish an appropriate follow-up period and schedule for reporting on the results of the program. In designing the follow-up programs for this Project, the Board expects that EBPC would plan an appropriate follow-up period and reporting schedule and would consult with relevant regulatory agencies and stakeholders on the design of its follow-up programs.
>
> The Board has considered the need for, and requirements of, follow-upprograms in the environmental assessment. This need has been

discussed in relevant sections of the environmental effects analysis in this Report. If the Project were to receive regulatory approval, the Board recommends that the following condition be imposed.

- EBPC shall file with the Board for approval, at least sixty days prior to construction, a description of planned follow-up programs as required by the CEA Act. The programs shall be designed to verify the accuracy of the environmental assessment predictions and to assess the effectiveness of mitigation for:
    - fish and fish habitat as outlined in the Brunswick Pipeline Project ESEA (Volume 1);
    - wetlands as outlined in the Brunswick Pipeline Project ESEA (Volume 1);
    - access management as detailed in the Access Management Plan (recommendation G);
    - horizontal directional drill (HDD) noise management (recommendation H); and
    - reclamation of Rockwood Park (recommendation B(5)).

Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board. The description of follow-up programs shall include a schedule for the submission of follow-up reports to the Board and the results of the follow-up programs shall be filed with the Board based on that schedule.

Therefore, the Board has included recommendations to this effect in section 9.2 as recommendations C and P.

If the Project were to receive regulatory approval and be constructed, the NEB would continue to have regulatory oversight of the Project for the life of the Brunswick Pipeline. Beyond the requirements for follow-up under the CEA Act, the OPR contain requirements related to environmental management that would apply to the Project throughout its life, and these requirements would be monitored and enforced by the NEB.

8.0 COMMENTS ON THE SUBSTITUTION PROCESS

The Board considers the pilot substitution process under the CEA Act to have been a success. The Board's hearing process met the following objectives.

- **CEA Act Requirements**: The process considered the full scope of the environmental assessment as set out in the Environmental Assessment Scoping Document in Appendix 4.

- **Public Access**: Information about the process being undertaken, including the environmental assessment scoping document, and the evidence considered as part of the process was available to the public.
- **Public Participation**: The process included opportunities for the public to convey their views to the Board's hearing panel, including written and oral presentations.
- **Reporting to Government**: The Board completed this EA Report for submission to the Minister of the Environment and the RA Ministers.

The NEB wishes to acknowledge the effort of its federal partners toward streamlining the regulatory process while maintaining the breadth and quality of the environmental assessment. The hearing process, as an integrated process considering environmental assessment as well as other issues relevant to the public interest, allowed the Board to hear from a broad spectrum of participants on a wide range of issues. The input was significant to the Board in its deliberations.

The success of this pilot project was made possible through the commitment and cooperation of the CEA Agency, federal departments involved in the environmental assessment as well as the participation of the people of New Brunswick who shared their views with the Board through written and oral presentations. The NEB also recognizes the cooperation of EBPC and its consultants.

The Board sincerely thanks all who participated in or otherwise supported this hearing and in particular the Board thanks the people of New Brunswick.

9.0 THE NEB'S CONCLUSION AND RECOMMENDATIONS

9.1 Conclusion

Pursuant to the CEA Act, the Board was charged with reviewing the environmental effects of the Project and the appropriate mitigation measures, and setting out its rationale, conclusions and recommendations, including any mitigation measures and follow-up programs in its EA Report.

This Report reflects the Board's review of the environmental effects of the Project and appropriate mitigation measures based on the Project description, factors considered during the review, and the scope of the factors. Throughout the Report, the Board has made a number of recommendations that, if included as conditions in any Certificate should the Project be approved under the NEB Act, would ensure that appropriate mitigation would be implemented. Further discussion regarding how these conditions would apply if the Project were to receive regulatory approval, and the Board's lifecycle approach to regulating pipelines, will be included in subsequent Reasons for Decision.

Provided all environmental commitments made by EBPC in its application and undertakings given by EBPC during the GH-1-2006 proceeding are implemented, and the Board's recommendations imposed as conditions to any Certificate, the Board finds that the Project is not likely to result in significant adverse environmental effects. Therefore, the Board recommends that the Project be allowed to proceed to regulatory and departmental decision-making.

9.2 Recommendations

In addition to the commitments EBPC has made throughout this proceeding, for example, those related to ongoing consultation, continuing education programs for First Responders and public awareness programs, the Board has a number of recommendations arising from its EA, the rationales for which are more fully discussed in the sections above.

It is recommended that in any Certificate that the NEB may issue, the following recommendations be attached as conditions of approval.

A. General

EBPC shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included or referred to in its application or as otherwise agreed to during questioning or in its related submissions.

B. Environmental Protection Plan

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a project-specific Environmental Protection Plan (EPP). This EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in EBPC's application for the Project, subsequent filings, evidence collected during the hearing process, or as otherwise agreed to during questioning or in its related submissions. The EPP shall describe the criteria for the implementation of all procedures and measures, and shall use clear and unambiguous language that confirms EBPC's intention to implement all of its commitments. Construction shall not commence until EBPC has received approval of its EPP from the Board.

The EPP shall address, but is not limited to, the following elements:

1) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all project phases and activities;
2) site-specific construction plans for wetlands where they cannot be avoided;
3) site-specific plans for habitat harboring Species at Risk and of Conservation Concern where it cannot be avoided;
4) project-specific acid rock drainage mitigation measures;
5) a construction and reclamation plan for Rockwood Park with evidence demonstrating consultation with stakeholders;
6) a reclamation plan which includes a description of the condition to which EBPC intends to reclaim and maintain the right of way once the construction has been completed, and a description of measurable goals for reclamation; and

7) evidence of consultation with relevant regulatory authorities that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.

C. Environmental Follow-up Programs

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a description of planned follow-up programs as required by the *Canadian Environmental Assessment Act*. The programs shall be designed to verify the accuracy of the environmental assessment predictions and to assess the effectiveness of mitigation for:

- fish and fish habitat as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- wetlands as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- access management as detailed in the Access Management Plan (recommendation G);
- horizontal directional drill (HDD) noise management (recommendation I); and
- reclamation of Rockwood Park (recommendation B(3)).

Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board.

These descriptions of follow-up programs shall include a schedule for the submission of follow-up reports to the Board.

D. Traditional Ecological Knowledge Study Recommendations

EBPC shall file with the Board, at least sixty (60) days prior to construction, an update on the implementation of the six recommendations identified in the Traditional Ecological Knowledge Study (July 2006).

E. Construction Inspection Program

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a construction inspection program. The program shall include:

1) a preliminary list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, and decision-making authority;
2) a discussion of how any changes to the items outlined in (1) would be determined during the course of construction; and
3) the reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety.

F. Archaeological Studies and Monitoring Plan

EBPC shall consult with the Archaeological Services Unit of New Brunswick on further studies and a monitoring plan for areas with high potential for heritage resources, once the locations for detailed right of way, facility sites and temporary work space have been determined. EBPC shall file with the Board, at least thirty (30) days prior to construction:

1) for approval, a report that documents how archaeological and heritage resources within the detailed route have been identified, recorded and mitigated;
2) copies of any correspondence from, or a summary of any discussions with the Archaeological Services Unit of New Brunswick regarding the acceptability of EBPC's report and proposed mitigation measures; and
3) for approval, a copy of any proposed monitoring plan.

G. Access Management Plan

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a project-specific Access Management Plan that includes:

1) EBPC's goals and measurable objectives regarding the Access Management Plan;
2) the methods and procedures to be used to achieve the mitigation goals;
3) the criteria to determine if the mitigation goals have been met;
4) the frequency of monitoring activities along the right of way;
5) a description of the adaptive measures that will take place in the event that access management measures are ineffective; and
6) evidence of consultation with relevant regulatory authorities and landowners that either confirms satisfaction or summarizes any unresolved issues with the proposed mitigation.

Construction shall not commence until EBPC has received approval of its Access Management Plan from the Board.

H. HDD Noise Management Plan

EBPC shall file for approval, at least ninety (90) days prior to the start of the HDD activity proposed for the Saint John River Crossing, a detailed noise management plan containing information on day-time and night-time HDD operations at the drill exit and entrance sites, including but not limited to the following:

1) ambient sound levels at noise-sensitive areas close to the HDD exit and entrance sites to establish a baseline for assessing potential noise impacts;
2) predicted noise level at the most affected residences caused by the HDD without mitigation;

3) proposed HDD noise mitigation measures, including but not limited to the following:
    i. all technologically and economically feasible mitigative measures as presented in Section 5.1.7 of the Environmental and Socio-Economic Assessment (Jacques Whitford, 2006) and in the Resource Systems Engineering assessment;
    ii. the use of full enclosures on diesel powered units;
    iii. the use of quiet machinery (where feasible);
    iv. the undertaking of HDD activities during periods where residential windows would be expected to be closed (i.e., during winter months);
4) predicted noise level at the most affected residences with implementation of the mitigation measures;
5) noise contour map(s) showing the potentially affected residences at various noise levels;
6) a noise monitoring program including locations, methodology and schedule;
7) confirmation that residents potentially affected by HDD noise will receive contact information for EBPC in the event they have concerns about the HDD noise;
8) a contingency plan with proposed mitigative measures for addressing noise complaints, which may include the temporary relocation of specific residents; and
9) confirmation that EBPC will provide notice to nearby residents in the event that a planned blowdown is required and that planned blowdowns will be completed during day-time hours whenever possible.

I. Saint John River Crossing

EBPC shall construct the crossing(s) of the Saint John River using the HDD method or, if this is not feasible, shall apply to the Board for approval of an alternative crossing technique and include an environmental assessment of the proposed alternative with its application.

J. Archaeological or Heritage Resource Discovery

EBPC shall notify the Board, at the time of discovery, of any archaeological or heritage resources and, as soon as reasonable thereafter, file with the Board for approval a report on the occurrence and proposed treatment of the archaeological/heritage resources, any changes to the archaeological/heritage monitoring plan, and the results of any consultation, including a discussion on any unresolved issues.

K. Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, an Emergency Procedures Manual (EPM) for the Project and shall notify the Board of any modifications to the plan as they occur. In preparing its EPM, EBPC shall refer to the Board letter dated 24 April 2002 entitled "Security and Emergency Preparedness Programs" addressed to all oil and gas companies under the jurisdiction of the National Energy Board.

L. Consultation on Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, evidence of consultation with stakeholders identified in the EPM, including a summary of any unresolved issues identified in consultations, and evidence that the EPM addresses, to the extent possible, any issues raised during consultation.

M. Emergency Response Exercise

1) Within six (6) months after commencement of operation of the Project, EBPC shall conduct an emergency response exercise with the objectives of testing:
    - emergency response procedures;
    - training of company personnel;
    - communications systems;
    - response equipment;
    - safety procedures; and
    - effectiveness of its liaison and continuing education programs.

2) EBPC shall notify the Board, at least thirty (30) days prior to the date of the emergency response exercise, of the following:
    - the date and location(s) of the exercise;
    - the participants in the exercise; and
    - the scenario for the exercise.

3) EBPC shall file with the Board, within sixty (60) days after the emergency response exercise outlined in (1), a report on the exercise including:
    - the results of the exercise;
    - areas for improvement; and
    - steps to be taken to correct deficiencies.

N. Emergency Response Exercise Program

Within six (6) months after commencement of operation of the Project, EBPC shall file with the Board a description of the company's emergency response exercise program, including:

- the frequency and type of exercises (full-scale, table-top, drill) it plans to conduct; and
- how the results of any emergency response exercises will be integrated into the company's training and exercise programs.

O. Post-construction Environmental Reports

Within six (6) months following commencement of operation of the Project, and on or before the 31st of January following each of the second (2nd) and fourth (4th) complete growing seasons following commencement of the operation of the Project, EBPC shall file with the Board a post-construction environmental report that:

1) identifies on a map or diagram any environmental issues that arose during construction;
2) provides a discussion of the effectiveness of the mitigation applied during construction;
3) identifies the current status of the issues identified, and whether those issues are resolved or unresolved; and
4) provides proposed measures and the schedule EBPC shall implement to address any unresolved issues.

P. Environmental Follow-up Program Reports

EBPC shall file with the Board, based on the schedule referred to in Recommendation C, the report(s) outlining the results of the follow-up programs.

National Energy Board
Environmental Assessment Report

Brunswick Pipeline Project

S. Leggett

Sheila Leggett
Panel Chair

Kenneth Bateman
Member

Crowfoot

Strater Crowfoot
Member

Calgary, Alberta
April 2007

10.0 NEB CONTACT

David Young
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444 Seventh Avenue S.W.
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secretary@neb-one.gc.ca

APPENDIX 1: Project-Related Advice Provided by RAs, FAs, and Provincial Departments with an EA Responsibility

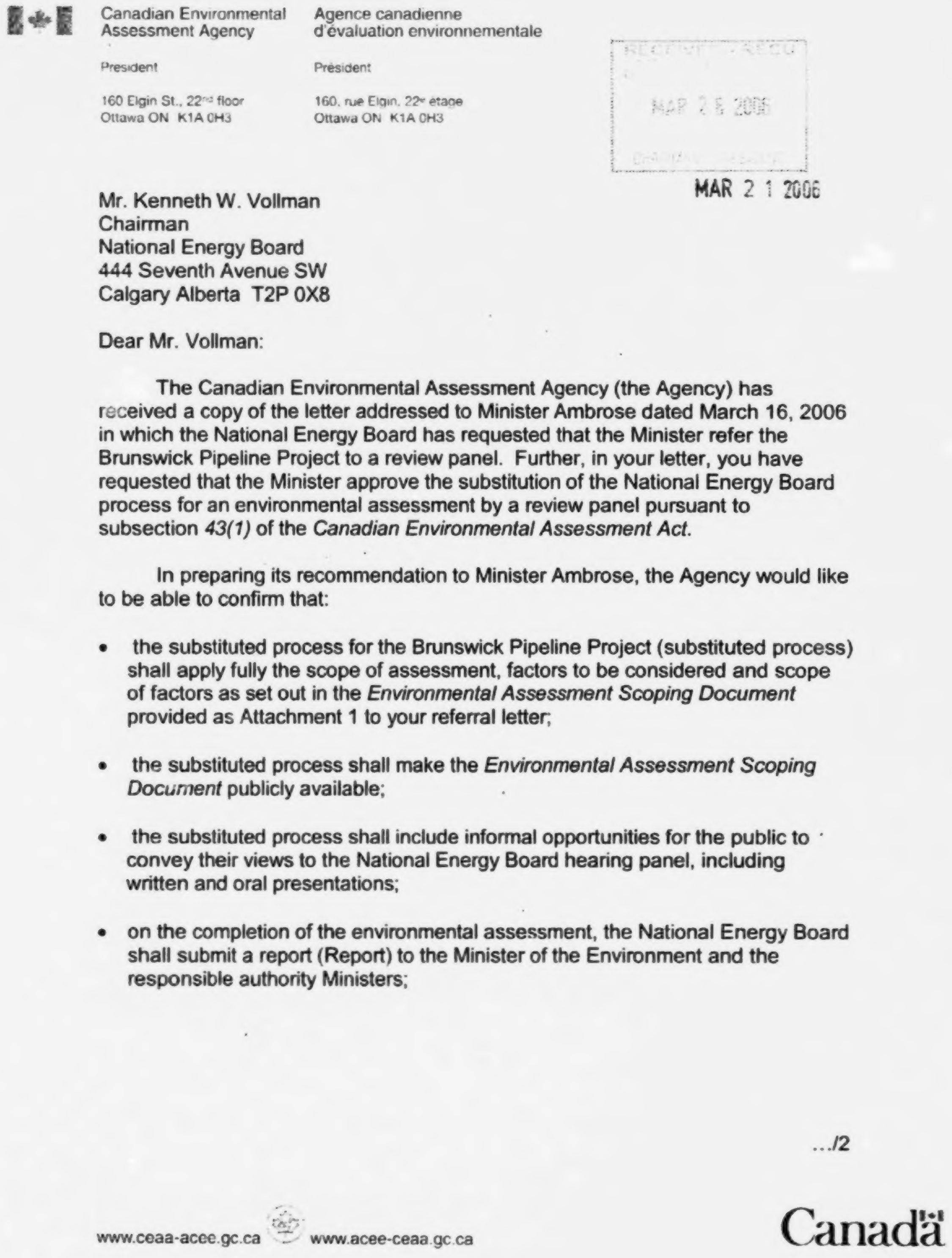
Department / Agency	Role	Summary of Comments
Canadian Transportation Agency	Possible RA	▪ CTA did not provide any submissions.
DFO	RA	▪ DFO declared itself a Government Participant in the hearing process. ▪ No other submissions were received from DFO during the course of the proceedings.
Health Canada	FA with specialist advice	▪ Health Canada declared itself a Government Participant in the hearing process. ▪ In its written evidence dated 20 September 2006, Health Canada provided comments regarding air quality, noise and vibration, drinking water, country foods, and socio-economic considerations. In this evidence, Health Canada made specific recommendations related to monitoring of air quality, addressing potential for noise from construction and blowdowns, and post-construction groundwater monitoring. ▪ Health Canada provided additional information about its comments related to noise in response to information requests from EBPC and the Board. ▪ In a letter dated 3 November 2006, Health Canada provided further information clarifying its comments on noise related to the HDD of the Saint John River, and indicating that its concerns were resolved as long as specific mitigation would be implemented. ▪ In a letter dated 15 November 2006, Health Canada provided comments on a possible certificate condition related to an HDD noise management plan. These comments have been incorporated into the NEB's recommendation H.
Transport Canada	RA	▪ Transport Canada provided a letter of comment dated September 11, 2006. ▪ In its letter of comment, Transport Canada provided information about its mandate and requirements related to the Project under the *Navigable Waters Protection Act*, the NEB Act, and the *Transportation of Dangerous Goods Act*. ▪ The letter also informed EBPC that if any "work" is placed in, on, under, over, through or across navigable water, EBPC is required to submit an application for approval.

Department / Agency	Role	Summary of Comments

EC	Possible RA	▪ EC was an Intervenor in the hearing process.
		▪ In its evidence dated 20 September 2006, EC provided various comments related to:
		  ▪ Preventing impacts to wildlife and habitat
		  ▪ Risk assessment and environmental emergencies
		  ▪ Preventing impacts to water quality
		  ▪ Considering alternative means involving disposal at sea
		▪ It also provided specific recommendations related to:
		  ▪ Route selection and corridor width
		  ▪ Migratory birds and forest habitats
		  ▪ Wetlands and wetland functions
		  ▪ Wildlife at risk and of conservation concern
		  ▪ Quantitative risk assessment
		  ▪ Environmental emergency prevention and response planning
		  ▪ Acid rock drainage
		  ▪ Hydrostatic testing
		  ▪ Horizontal directional drilling
		  ▪ Assessing alternative means involving disposal at sea
		▪ EC provided additional information about its comments related to spill response in response to an information request from EBPC.
		▪ EC also submitted final argument reiterating its recommendations and providing comments on possible certificate conditions.

NRCan	FA with specialist advice	▪ NRCan declared itself a Government Participant in the hearing process. ▪ In its evidence dated 20 September 2006, NRCan provided comments regarding acid rock drainage and metal leaching; groundwater and hydrogeology; and seismicity. In this evidence, NRCan made specific recommendations related to acid rock management and groundwater studies.
NBDOE	Provincial department with an EA responsibility	▪ NBDOE was an Intervenor in the hearing process. In its application for intervention, NBDOE indicated that the Province of New Brunswick has always been and continues to be interested in appropriate economic development, including energy infrastructure projects that will benefit its citizens while ensuring that potential environmental impacts, including socio-economic impacts, of any development proposals are adequately addressed. ▪ As part of its evidence, EBPC submitted comments it had received from the New Brunswick Technical Review Committee, led by the NBDOE, on EBPC's ESEA for the Project. In its submission, EBPC also provided its response to those comments. The comments were on a wide variety of topics addressed in EBPC's ESEA ▪ In its final argument, NBDOE reiterated its comments from its application for intervention.

APPENDIX 2: Substitution Requirements



Canadian Environmental Assessment Agency
Agence canadienne d'évaluation environnementale

President
Président

160 Elgin St., 22nd floor
Ottawa ON K1A 0H3
160, rue Elgin, 22e étage
Ottawa ON K1A 0H3

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MAR 2 8 2006
CHAIRMAN [illegible]

MAR 2 1 2006

Mr. Kenneth W. Vollman
Chairman
National Energy Board
444 Seventh Avenue SW
Calgary Alberta T2P 0X8

Dear Mr. Vollman:

The Canadian Environmental Assessment Agency (the Agency) has received a copy of the letter addressed to Minister Ambrose dated March 16, 2006 in which the National Energy Board has requested that the Minister refer the Brunswick Pipeline Project to a review panel. Further, in your letter, you have requested that the Minister approve the substitution of the National Energy Board process for an environmental assessment by a review panel pursuant to subsection *43(1)* of the *Canadian Environmental Assessment Act*.

In preparing its recommendation to Minister Ambrose, the Agency would like to be able to confirm that:

- the substituted process for the Brunswick Pipeline Project (substituted process) shall apply fully the scope of assessment, factors to be considered and scope of factors as set out in the *Environmental Assessment Scoping Document* provided as Attachment 1 to your referral letter;
- the substituted process shall make the *Environmental Assessment Scoping Document* publicly available;
- the substituted process shall include informal opportunities for the public to convey their views to the National Energy Board hearing panel, including written and oral presentations;
- on the completion of the environmental assessment, the National Energy Board shall submit a report (Report) to the Minister of the Environment and the responsible authority Ministers;

.../2

- the Report submitted to the Minister of the Environment shall set out the National Energy Board's rationale, findings, conclusions and recommendations, including:
    - any mitigation measures that should be implemented with respect to the project,
    - the follow-up program that the National Energy Board recommends;
    - the National Energy Board shall publish the Report;
    - the National Energy Board has agreed, that for this project only, the Agency shall administer the Participant Funding Program for the substituted process;
    - the National Energy Board shall assist the Agency in ensuring that the successful applicants from the Participant Funding Program have applied for and received intervener status in the hearings before the Agency enters into any contribution agreements;
    - following the submission of the Report to the Minister of the Environment, the National Energy Board shall provide the Agency with a report on the participation of the successful Participant Funding applicants in the hearing process ensuring that those successful applicants provided evidence at the hearing regarding the factors considered or other issues related to the environmental assessment and/or provided the same in writing.

Following confirmation from the National Energy Board of its commitment to the above, the Agency will proceed with its recommendation to Minister Ambrose and will inform you of her decision.

Yours sincerely,

Jean-Claude Bouchard

c.c.: Ted Currie, Fisheries and Oceans Canada
Carl Ripley, Transport Canada
Friederike Kirstein, Environment Canada
Sarah Olivier, Natural Resources Canada
Tony Henderson, Health Canada
Bill Aird, Canadian Transport Agency
Paul Vanderlaan, New Brunswick Department of Environment and Local Government

National Energy Board
Office national de l'énergie

Office of the Chairman
Bureau du Président

27 March 2006

Mr. Jean-Claude Bouchard
President
Canadian Environmental Assessment Agency
160 Elgin Street, 22nd Floor
Ottawa, (Ontario) K1A 0H3

Brunswick Pipeline Project – Substituted Process Commitments

Dear Mr. Bouchard,

The National Energy Board has received your letter dated 21 March 2006 requesting that the Board confirm its commitment to the list of requirements for a substituted process for the proposed Brunswick Pipeline Project (the Project) prepared by the Canadian Environmental Assessment Agency (the Agency) and outlined in the letter. The Board has reviewed the list of requirements for the substituted process and is committed to meet those requirements in conducting its review of the Project.

Thank you very much for working with the Board to bring our recommendations and requests related to the Project to Minister Ambrose. The NEB looks forward to working with our colleagues at the Agency to deliver a rigorous, timely and harmonized federal environmental assessment of the Project.

Sincerely,

Kenneth W. Vollman,
Chairman

c.c.

Fisheries and Oceans Canada
Mr. Ted Currie, Habitat Assessment Biologist
343 University Avenue
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.../2

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Environment Canada
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Natural Resources Canada
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Health Canada
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Canadian Transportation Agency
Mr. Bill Aird, Senior Environmental Assessment Officer
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Facsimile (819) 953-5564

New Brunswick Department of Environment and Local Government
Mr. Paul Vanderlaan, Director, Project Assessment
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Fredericton, New Brunswick
Facsimile (506) 453-2627

Canadian Environmental Assessment Agency
Mr. Bruce Young, Director, Panel Management
Place Bell Canada 160 Elgin Street, 22nd Floor
Ottawa, Ontario K1A 0H3
Facsimile (613) 957-0941

Mr. Derek McDonald, Senior Program Officer
1801 Hollis Street, Suite 200
Halifax, Nova Scotia B3J 3N4
Facsimile (902) 426-6550

Minister of the Environment Ministre de l'Environnement

Ottawa, Canada K1A 0H3

03 MAI 2006

Mr. Kenneth W. Vollman
Chairman
National Energy Board
444 Seventh Avenue South West
Room 4047
Calgary AB T2P 0X8

Dear Mr. Vollman:

Thank you for your letter of March 16, in which the National Energy Board (NEB) has requested that I refer the Brunswick Pipeline Project to a review panel. Further, in your letter, you have requested that I approve the substitution of the NEB process for an environmental assessment by a review panel pursuant to subsection 43(1) of the *Canadian Environmental Assessment Act* (the Act).

I am also aware of the letter addressed to you, dated March 21, and signed by the President of the Canadian Environmental Assessment Agency (the Agency) in which the President was seeking confirmation of your commitment to a list of conditions for a substituted process. I understand that you have responded to the Agency in a letter dated March 23, indicating that you are committed to meeting those conditions set out in the Agency's letter of March 21.

I am pleased to inform you that based on your commitments made in your letters of March 16 and 23, I am referring the project to a review panel and I am approving your request for substitution of the NEB process for an environmental assessment by a review panel pursuant to subsection 43(1) of the Act. I look forward to the receipt of your report.

Please accept my best wishes.

Yours sincerely,

Rona Ambrose

Rona Ambrose

c.c.: The Honourable Loyola Hearn , P.C., M.P.
The Honourable Lawrence Cannon, P.C., M.P.
The Honourable Gary Lunn, P.C., M.P.
Ms. Marian L. Robson, President of the Canadian Transportation Agency

Canada

APPENDIX 3: Comments Received by the NEB on Draft Environmental Assessment Scoping Document

Stakeholder	Summary of Comments
Bear Head LNG Corporation	▪ Project-specific direction on the scope of alternatives to be considered should be given, specifically, direct connections to Canada's Maritimes gas market should be considered
Ian and Deborah Benjamin	▪ Oppose three land routes for pipeline because of effects on Rockwood Park, risk to hospital ▪ Want an independent assessment of the costs of the undersea route
Carol Blomsma	▪ Concerned about routing through the City
Dorothy Dawson	▪ Concerned about route through the City, prefers underwater route
Teresa Debly	▪ Concerns about water tables, air shed, effects on wildlife from blasting, and noise should be addressed
EBPC	▪ Current scope is appropriate
EC	▪ Concurs with the draft scoping document as presented
Friends of Rockwood Park	The following topics should be addressed in the environmental assessment: ▪ Detailed examination of undersea route ▪ Consequences of accidents and malfunctions ▪ Emergency response ▪ Related to Rockwood Park: construction methods, noise, caves, lakes and ponds, ATVs, flora and fauna, fossils ▪ Construction disturbance to community ▪ Relationship between Irving Repsol LNG Terminal and Brunswick Pipeline ▪ Effects of Brunswick Pipeline combined with Irving Repsol LNG Terminal ▪ Gas emissions through venting or leakage ▪ Security ▪ Marsh Creek flood plain ▪ Temperature of buried pipeline ▪ Cumulative effects of industrialization ▪ Property value, tax, and insurance ▪ Employment for pipeline construction ▪ Effects on land use near the pipeline ▪ Liability ▪ Gas supply ▪ Social capital in Saint John ▪ City infrastructure ▪ Vegetation control along pipeline corridor ▪ Soil contamination
Ken Golding	▪ Not concerned about route; tax revenue and safety are important ▪ Consider automatic closing of pipeline valves and review the number of valve stations planned for Saint John
Dennis Griffin	▪ Would like more information about the routing
Patty Higgins	▪ Concerns about impact of LNG tankers, effects on air shed, and

Stakeholde	Summary of Comments
	contaminated soil should be addressed
William Johnston	- Opposes the pipeline
Betty Lizotte	- Consider effects on Rockwood Park, including lakes, wildlife, and trees. Prefers undersea route
Fred London	- Concerned about routing through the Park and the City
Bob McDevitt	- Prefers route under the Bay of Fundy to avoid danger to citizens and Rockwood Park
Scott O'Leary	- Opposes pipeline route, prefers route under the Bay for safety reasons
Dan Robichaud	- Concerned about emergency response
Saint John Citizens Coalition for Clean Air	The following topics should be addressed in the environmental assessment - Effects of change in ownership of the project - Effects from trespass on ATVs - Assessment of communication system, power supply required to service site - Comprehensive list and analysis of malfunctions or accidents - Psychosocial health impacts - Assessment of the underwater route under the Bay of Fundy - Effects on air from tree removal, construction emissions at the airshed level - Need for the Project and alternatives to the Project should be mandatory topics, supply of LNG - City of Saint John tax concession - Community knowledge about worries, complaints, ideas, alternatives and personal impacts - Consideration of other projects or activities that have been or will be carried out, such as the oil refinery upgrade, possibility for petrochemical facilities - Local availability of natural gas from the Project - Security • Pipeline safety
Horst Sauerteig	- Submarine route should be considered and detailed investigations of the sea- and sub-sea floor and related geotechnical and geophysical conditions should be carried out for consideration
Michael Saunders	- Opposes route through the City, prefers under water route
Abigail Teed-Walton	- Opposes route through residential areas of Saint John and Rockwood Park, prefers route through the Bay of Fundy
Dr. Leland Thomas	- Should also include the environmental effects of the Canaport LNG plant - Research should be carried out into the location of the stated supply for the Brunswick Pipeline
Carol Ring	- Protests route through Rockwood Park and residential areas of Saint John - Only acceptable route is through Bay of Fundy
Ruth Vincent	- Concerned about pipeline routing related to safety
Don Watson	- Concerned about safety, emergency response and associated costs - Prefers marine route
SarahRose Werner	- Concerned about effects of drilling and blasting

APPENDIX 4: Board Ruling - Environmental Assessment Scoping Document (Letter dated 23 June 2006)

The Brunswick Pipeline Project (the Project) is aimed at the construction of a natural gas transmission pipeline from the Canaport™ Liquefied Natural Gas (LNG) Facility at Mispec Point, near Saint John, New Brunswick (currently under construction), to an export point at the Canada-US border.

In May 2006, the National Energy Board (NEB or Board) released for public comment a draft Environmental Assessment Scoping Document for the Brunswick Pipeline Project that included input from the other federal and provincial departments involved in the environmental assessment of the Project. The deadline for comments was 7 June 2006.

The public comments received generally fell into three categories:

1. requests for specific issues or pieces of information to be considered as part of the environmental assessment, or concerns expressed about the Project, that fall within the existing scope of the factors for the assessment, such as environmental effects of the proposed route and effects of accidents and malfunctions;
2. requests for additional factors to be considered as part of the environmental assessment, or concerns expressed about the Project, where the factors fall within the list of issues considered within the NEB's regulatory mandate under the *National Energy Board Act* rather than its environmental assessment mandate under the *Canadian Environmental Assessment Act* (CEA Act). These factors include the safety of the design and operation of the proposed facilities, the economic feasibility of the proposed facilities, and the potential environmental and socio-economic effects of the proposed facilities; and,
3. requests to expand the scope of the Project to include the Canaport™ LNG facility or expand the scope of the factors to include other factors that are not currently included in either the scope of the assessment or the list of issues within the Board's regulatory mandate.

With respect to items in the first category, the Board is satisfied that since the issues raised are within the scope of the assessment as described in the draft document, the scope is adequate.

With respect to items in the second category, the Board is of the view that these issues are not covered by the scope of the assessment as described in the draft document, but are covered by the broad issues in the List of Issues attached as Appendix I to the Board's Hearing Order GH-1-2006. Since these broad issues have already been identified by the Board for discussion in the proceeding, while they are outside of the scope of the environmental assessment, they will be considered within the Board's proceeding which considers issues beyond the environmental assessment. Therefore, the Board is of the view that these issues need not be added to the scope of the environmental assessment.

With respect to items in the third category, the Board notes that the Canaport™ LNG facility has already undergone an environmental assessment by federal authorities under the CEA Act and by the Province of New Brunswick under provincial environmental assessment regulations. Since the LNG facility has already been the subject of a recent environmental assessment, the Board is of the view it should not include the Canaport™ LNG terminal or the LNG tanker activity in the scope of the project for the environmental assessment of the Brunswick Pipeline Project. To do otherwise would be contrary to one of the CEA Act's stated purposes, that being the elimination of unnecessary duplication in the environmental assessment process. In addition, assessment of a project under the CEA Act is to occur at the proposal stage. The LNG terminal was assessed at the proposal stage and is now under construction.

However, within the scope of the assessment for the Brunswick Pipeline Project set out in the draft document, the terminal and tanker traffic can still be considered to the extent that they are relevant as cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out.

Some commenters requested that a complete assessment of an underwater route for the Project be included as part of the scope of the environmental assessment. Consideration of alternative means is already a factor within the scope of the environmental assessment and includes consideration of alternative routes and how or why they are technically, economically and environmentally feasible. Accordingly, there is no need to add additional wording to the scope. Intervenors will have an opportunity to test the adequacy of the Applicant's analysis during the hearing and, if they choose, to submit their own evidence.

A comment was received by the Board requesting that in the scope of the environmental assessment, the word "consideration" be removed when referring to factors under paragraph 16(1)(e) of the CEA Act. The Board notes that the word "considered" is used in that paragraph of the CEA Act. Section 16 of the CEA Act requires that the factors listed in that section must be taken into consideration. This is a legislated requirement, therefore the responsible authorities will take these factors into account in the environmental assessment.

The Board has therefore determined that the scope of the Environmental Assessment as outlined in the draft Environmental Assessment Scoping Document is appropriate. The Environmental Assessment Scoping Document has been modified to reflect minor changes in the description of the components listed under the Scope of the Project to accurately reflect the Project as proposed by Emera Brunswick Pipeline Company Ltd. in its application to the NEB. The revised Environmental Assessment Scoping Document is attached.

Purpose of the Scoping Document

This scoping document is an information document briefly describing the scope of the federal and provincial environmental assessments for the Project. The term "scope of the environmental assessment" means the proposed scope of the Project for the purposes of the environmental assessment, the factors proposed to be considered in the environmental assessment, and the proposed scope of those factors.

The responsible authorities (RAs) will ensure that an environmental assessment of the Project is conducted in accordance with the scope of the Project. The RAs will include in their review consideration of the factors identified and will consider the potential effects of the proposed Project within spatial and temporal boundaries described under scope of the factors.

Environmental Assessment Process

The Project has been referred to a Review Panel pursuant to section 25 of the CEA Act. The CEA Act Panel Review requirements will be substituted with the NEB regulatory process as allowed under section 43 of the CEA Act.

The NEB, the Department of Fisheries and Oceans, Transport Canada, Environment Canada and the Canadian Transportation Agency are the RAs and shall ensure that an environmental assessment of the Project is undertaken. The federal permits and authorizations which trigger the CEA Act and will be necessary for this project are:

- a certificate of public convenience and necessity issued pursuant to section 52 of the *National Energy Board Act* (NEB Act);
- authorization by the Minister of Fisheries and Oceans pursuant to subsection 35(2) and/or section 32 of the *Fisheries Act*;
- approval by the Minister of Transport pursuant to subsection 5(1) of the *Navigable Waters Protection Act*;
- possible approval by the Minister of the Environment for disposal at sea pursuant to the *Canadian Environmental Protection Act*; and
- the Canadian Transportation Agency may issue a permit or license under subsection 101(3) of the *Canada Transportation Act*.

To assist in the environmental assessment process, Natural Resources Canada and Health Canada may provide expert advice in relation to the Project.

The Project must be registered as an undertaking pursuant to the New Brunswick *Environmental Impact Assessment Regulation* under the New Brunswick *Clean Environment Act*. The New Brunswick Department of Environment and Local Government administers this regulation and will require that an environmental impact assessment be carried out and approved by Government of New Brunswick before the Project can proceed.

Electronic Filing

While the Board accepted some comments on the draft scope received by e-mail, the Board reminds anyone wishing to participate in the hearing process for the Brunswick Pipeline Project that e-mail will not be accepted during the hearing process. For details on acceptable methods of filing documents, please refer to the NEB's Hearing Order GH-1-2006.

Brunswick Pipeline Project

Environmental Assessment Scoping Document

1.0 INTRODUCTION

The proposed Brunswick Pipeline Project (the Project) is aimed at the construction of a natural gas transmission pipeline from the Canaport™ Liquefied Natural Gas (LNG) Facility at Mispec Point, near Saint John, New Brunswick (currently under construction), to an export point at the Canada-US border.

The Project is subject to the federal environmental assessment process pursuant to the *Canadian Environmental Assessment Act* (the CEA Act).

2.0 SCOPE OF THE ASSESSMENT

2.1 Scope of the Project

The scope of the Project as determined for the purposes of the environmental assessment includes the various components of the Project as described by Emera Brunswick Pipeline Company Ltd. in its application to the National Energy Board dated 23 May 2006, and the physical works and activities described in this document.

The scope of the Project includes construction, operation, maintenance and foreseeable changes, and where relevant, the abandonment, decommissioning and rehabilitation of sites relating to the entire Project, and specifically, the following physical works and activities:

- a pipeline of approximately 145 kilometres from the Canaport™ LNG Facility at Mispec Point, near Saint John, New Brunswick (currently under construction) and the international border near St. Stephen, New Brunswick, with a diameter of 762 millimetres (30 inches) and a maximum pressure of 9930 kPa (1440 psi);
- six above-ground valve sites, three in urban Saint John and three in rural areas, within fenced areas approximately 20 metres by 20 metres, with associated access roads, power supply and telecommunications supply;
- a combined meter station and launcher site immediately outside of the Canaport™ LNG facility battery limits, with associated access road, power supply and telecommunications supply;
- a combined valve and launcher/receiver station site adjacent to LV 63 on the existing Saint John Lateral (off of the West Branch Road, Musquash), with associated access road, power supply and telecommunications supply; and;
- related physical works and activities, including all temporary facilities, such as temporary work areas, marshalling yards, storage areas and access roads, required for the construction of the pipeline.

2.2 Factors to be Considered

The environmental assessment will include a consideration of the following factors listed in paragraphs 16(1)(a) to (d) and subsection 16(2) of the CEA Act:

1. the environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
2. the significance of the effects referred to in paragraph 1;
3. comments from the public that are received during the public review;
4. measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project;
5. the purpose of the Project;
6. alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means;
7. the need for, and the requirements of, any follow up program in respect of the Project; and
8. the capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future.

In addressing the above factors, which are mandatory in any panel review under the CEA Act, the environmental assessment will demonstrate the following:

- consideration of alternative means includes addressing an alternative marine route for the pipeline south of Saint John that may necessitate a disposal at sea permit;
- a priority on impact avoidance and minimization opportunities that recognizes "…mitigation is used to address all adverse environmental effects, whether or not subsequent analysis determines that the effects are significant" (CEA Agency RA Guide, 1994, p. 88); and,
- a consideration of available community knowledge and Aboriginal traditional knowledge as applicable.

In accordance with paragraph 16(1)(e) of the CEA Act, the assessment by the RAs will also include a consideration of the additional following matters:

9. the need for the Project; and
10. alternatives to the Project[22].

Subsection 2(1) of the CEA Act defines environmental effects as any change that the Project may cause in the environment, including any change it may cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as those terms are defined in subsection 2(1) of the *Species at Risk Act*, any effect of any such change on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes by aboriginal persons or any structure site or thing that is of historical, archaeological, paleontological or architectural significance or any change to the Project that may be caused by the environment.

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[22] The Canadian Environmental Assessment Agency's October 1998 Operational Policy Statement addressing the "need for" the project, the "purpose of" the project, the "alternatives to" the project and "alternative means" of carrying out the project, provides definitions and general guidance on when and how these factors should be considered.

2.3 Scope of Factors to be Considered

The environmental assessment will consider the potential effects of the proposed Project within spatial and temporal boundaries which encompass the periods and areas during and within which the Project may potentially interact with, and have an effect on components of the environment. These boundaries will vary with the issues and factors considered, and will include;

- construction, operation, decommissioning, site rehabilitation and abandonment or other undertakings that are proposed by the Proponent or that are likely to be carried out in relation to the physical works proposed by the Proponent, including mitigation and habitat replacement measures;
- the natural variation of a population or ecological component;
- the timing of sensitive life cycle phases of wildlife species in relation to the scheduling of the Project;
- the time required for an effect to become evident;
- the time required for a population or ecological component to recover from an effect and return to a pre-effect condition, including the estimated degree of recovery;
- the area affected by the Project; and
- the area within which a population or ecological component functions and within which a Project effect may be felt.

For the purpose of the assessment of the cumulative environmental effects, the consideration of other projects or activities that have been or will be carried out will include those for which formal plans or applications have been made.

APPENDIX 5: Board Ruling on Questioning about Alternatives to the Project (17 November 2006, Transcript Volume 11, lines 17126-17136)

The Board has heard a line of questioning from Anadarko and an objection to the proposed line of questioning by Emera and Repsol.

In responding to these objections, the Board is of the view it would also be helpful for parties to set out a framework for consideration of relevant issues in this proceeding.

The Board is here to hear evidence concerning the benefits and burdens of the applied-for Brunswick Pipeline Project, as currently framed. As a result, exploration of these benefits and burdens of this project by parties to this proceeding is permitted.

Areas such as the impact this project may have on current pipelines, other current or reasonably contemplated projects, current tolls or supply and demand market issues are, therefore, open to be explored.

Need for the pipeline can be fully explored, including the issue of whether this project, as currently framed, could be considered a bypass to existing or reasonably contemplated pipeline facilities.

However, exploration of the benefits or burdens of a project, which is not before the Board, is outside the scope of this proceeding; that is, what the benefits would be of a different project, built by a different company, involving altering of the M&NP Canada System to transfer the supply from Canaport, the cost for doing so and the benefits or burdens of such other project on other matters, such as the ability of Nova Scotia's future potential supply sources to access the market, are outside the scope of this proceeding.

The speculative impact on the levels of tolls, on M&NP Canada, if such a project were to be constructed are also not of probative value to the Board, in assessing the benefits and burdens of this Brunswick Pipeline Project.

There is no evidence submitted that any such speculative or hypothetical project would be constructed[23]. Spending time exploring these speculative and remote alternative projects is not of sufficient probative value to the Board, in determining whether this project is in the present and future of public convenience and necessity.

Alternatives to the project raised, in the context of CEAA, should not be used to delve into a detailed economic analysis of the benefits and burdens of that alternative, as it is outside of the scope of the Board's considerations under CEAA.

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[23] Correction to this word in the original transcript was made in transcript volume 12, paragraph 19686.

Accordingly, a discussion of whether an alternative or hypothetical project, which is not proposed before the Board, and how that hypothetical project could potentially serve incremental natural gas supply for the region, or affect future tolls on other pipelines is not sufficiently tied to an assessment of the benefits and burdens of the Brunswick Pipeline Project, and will not be permitted.

With this direction, Mr. Roth, you may ask any further questions that fall within this framework.

APPENDIX 6: Board Ruling on Questioning about Alternative Means (16 November 2006, Transcript Volume 10, lines 14866-14878)

Yesterday, Mr. Sauerteig asked the Board to consider and allow him to continue cross-examining Emera's Panel No. 1 about his counter-proposal to the marine route that Emera examined in the course of making its decision to apply for the preferred route in its application.

The grounds Mr. Sauerteig relies on to bring this motion are that this marine crossing was an important part of his written intervention and that he has not been afforded sufficient opportunity to test the evidence adduced by Emera regarding the marine route alternatives.

Mr. Sauerteig also argued that no objections to this line of investigating Emera's application to the National Energy Board were raised before November 13, 2006.

Mr. Sauerteig further argued that according to Item 1.8.6 of Emera's application to the NEB, this marine crossing was considered but rejected for reasons which Mr. Sauerteig intended to show in the course of his cross-examination were either wrong or overstated.

Mr. Sauerteig states that this makes this aspect of Emera's application to the NEB suspect and that he was, until his questioning was halted, in the process of disproving most, if not all, of Emera's reasons listed in his application for rejecting this marine crossing.

As the Board has set out in previous applications for review during this hearing, Rule No. 44 of the NEB Rules of Practice and Procedure, requires that an application for review of a Board decision identifies sufficient grounds to raise doubt as to the correctness of that decision or order, including an error of law or jurisdiction, changed circumstances or new facts which have arisen, or facts that were not placed in evidence in the original decision, and were then not discoverable by due diligence.

The Board has not persuaded that grounds have been identified to raise doubt as to the correctness of the Board's request to have Mr. Sauerteig move on to another line of questioning.

As a result, Mr. Sauerteig's application for review is denied.

While the Board could end the matter here and -- will take this opportunity to explain that it is incumbent upon a project proponent to demonstrate under the Canadian Environmental Assessment Act that the proponent has considered alternative means of carrying out its proposed project that are technically and economically feasible.

The Board has throughout these proceedings permitted cross-examination within the scope set out under CEA. In this instance, Emera has filed evidence that it has considered the marine route as an alternative means to the preferred corridor for which it now applies.

It is the appropriateness of the preferred corridor that Emera asks the Board to adjudicate, not the alternative means such as the marine route.

In deciding whether to grant or deny Emera's application, the Board must be satisfied with Emera's evaluation of alternative means, as set out in the Canadian Environmental Assessment Act. Should the Board be satisfied with Emera's evaluation of alternative means under that act, the Board is then only able to judge the appropriateness of the preferred corridor, as applied for by Emera.

The Board points out that in the argument phase of this hearing, parties are free to argue about the adequacy of the alternative means Emera has considered under the Canadian Environmental Assessment Act, including the technical and economic feasibility of those alternative means, and that parties can also argue the adequacy of the preferred route and the general land requirements as set out in the list of issues.

APPENDIX 7: Board Ruling on Objections to Late Filings, Filing of Late Letters of Comment and Requests to File Late Evidence, Ruling Number 10 (Letter dated 23 October 2006)

Background

The Board has received an objection to the Letter of Comment from Ms. L. McColgan, filed with the Board on 10 October 2006. A number of objections were also raised to the request to make an oral statement by Atlantic Institute for Market Studies (AIMS), whose request was filed

6 October 2006. The Board has also received Letters of Comment from Wallace MacMurray, on 13 October 2006, D.R. McColgan and David Hayward, filed with the Board on 17 October 2006. No objections have been received to the filing of these late Letters of Comment. All of these filings were made past the deadlines set out in the Hearing Order GH-1-2006 Timetable of Events, as amended.

The Board has also received two requests for permission to file late evidence from

Ms. J. Dingwell, dated 11 October 2006, and from Mr. D. Robichaud, dated 13 October 2006. Furthermore, on 19 October 2006, Mr. Robichaud filed evidence in the form of a report by Accufacts. In addition, Ms. D. Fuller provided photographs to Board staff on 12 October 2006. The photographs were not accompanied by a request to the Board for permission to file them late.

This ruling deals with all of these matters.

Views of the Board

Criteria that may be considered

The Board is of the view that it would be helpful for all parties to be reminded of the criteria the Board may consider in determining whether to grant requests to file late evidence, late Letters of Comment or late requests to participate.

On any motion for the filing of late evidence, the Board considers whether the applicant for the relief has persuaded the Board that:

(i) the evidence is relevant;
(ii) that there is a justification for filing late or that the party has acted with due diligence to try to meet the deadline; and
(iii) that there will be little prejudice resulting to any party if the evidence is accepted into the record (taking into account any mitigative measures).
(iv) In addition, the Board may consider other factors, such as whether the probative value of the evidence outweighs any prejudice to other parties as a result of the lateness of receiving it; the efficiency and fairness of the Board's regulatory process and the mandate of the Board to make a fully informed decision on an application before it.

In other words, the Board considers whether the applicant for the late participation has provided a justification for what interest the person has in the application before the Board, why it is applying late, and whether any other party would be prejudiced by its participation.

When considering late Letters of Comment or late requests to participate, similar criteria are taken into account. In the case of late participation, the Board may also consider other factors, including whether the participant is likely to materially assist in the understanding of the issues raised by the application, and whether those who already are participating are able to sufficiently advance concerns relating to the public interest. The Board will also balance accommodation of views of those with an interest in the application and the need for an efficient regulatory process.

Turning now to the individual objections, late Letters of Comment and requests to file late evidence, and considering the criteria set out above, the Board finds as follows.

Ms. McColgan's Late Letter of Comment

Letters of Comment often contain both unsworn evidence and aspects of final argument. With respect to Ms. McColgan's late Letter of Comment, the Board notes that while the content of the letter may be relevant to the issues before the Board in this hearing, Ms. McColgan has not provided a justification for filing the Letter of Comment past the deadline (12 September 2006) nor provided any explanation as to why the letter could not have been provided within the timeframe set out in the Hearing Order, In addition no explanation has been given as to why the parties to the hearing will not be prejudiced by the late filing. The Board also notes that a letter of objection to this late request has been filed in these proceedings

For these reasons, the Board has decided not to admit Ms. McColgan's Letter of Comment onto the record in this proceeding.

Mssrs. MacMurray, McColgan and Hayward's Late Letters of Comment

As permitted by the *National Energy Board Act*,[24] the Board has decided, on its own motion, to deal with the question of whether or not to admit late Letters of Comment filed by

Mr. MacMurray, Mr. McColgan and Mr. Hayward. These Letters of Comment have been sent to the Board well past the deadline for filing Letters of Comment, as set out in the Hearing Order. As with Ms. McColgan's letter, none of these submissions provide a justification for filing them past the Board's deadline for filing such letters. Nor do they provide an explanation as to why parties to the hearing will not be prejudiced by the late filings.

For these reasons, the Board has decided not to admit the late Letters of Comment by Mr. MacMurray, Mr. McColgan and Mr. Hayward onto the record in this proceeding.

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[24] R.S., 1985, c.N-7.

AIMS' Request to Make an Oral Statement

On 6 October 2006, AIMS submitted its request to make an oral statement. The request does not indicate the position AIMS will take at the oral hearing nor was it accompanied by a Letter of Comment. The request does not indicate why AIMS could not have filed its request by the deadline set out in the Timetable of Events, as amended. A number of parties objected to this late request of the basis that it was not submitted by the required deadline.

As noted in the Hearing Order, persons who make oral statements may not file anything in writing at the time of making their oral statements. Oral statement makers do not receive the application, are not entitled to ask information requests or cross-examine parties to the proceeding, or provide final argument. Oral statement makers are sworn in, make their oral statement, and then are available to be questioned on the statement by the Applicant and the Board and any other party with leave of the Board. As a general rule, only parties adverse in interest may seek leave to question oral statement makers.

The Board notes that the content of the oral evidence and argument to be provided by any oral statement maker is not known by any other party to this proceeding or other oral statement makers prior to the oral portion of the hearing, unless that person has accompanied their request with a Letter of Comment. While the content of the information is not known ahead of an oral statement being made, any prejudice suffered by a party as a result of the content of an oral statement can be rectified by questioning the oral statement maker by the party alleging prejudice.

In this instance, AIMS has not submitted its request within the timelines set out in the Hearing Order nor justified why a late filing should be accepted. Furthermore, AIMS has provided no explanation as to why parties would not be prejudiced by the late filing. While the Board notes that parties adverse in interest could be permitted to question AIMS on its oral statement, in this instance, the Board is not persuaded that, given the late date, AIMS should be permitted to make an oral statement at the hearing.

For these reasons, the Board has decided that AIMS shall not be permitted to present an oral statement at the oral hearing.

Ms. Dingwell's Request to File Late Responses to Information Requests

Ms. Dingwell has requested permission to file her responses to the information requests of Ms. Debly after the deadline set out in the Board's Ruling Number 9. She has indicated in her request that while she has gathered the information, she is awaiting verification by the Cherry Brook Zoo's director prior to submitting it, so as to ensure its accuracy. The Board has previously indicated that this information may be relevant to the issues before the Board and the resolution of those issues. The late information sought by the information request is of a factual nature; that is, it concerns facts related to the zoo's background. In the Board's view this type of information is not likely to create significant prejudice to other parties adverse in interest, particularly if the information is submitted prior to the commencement of the oral hearing. As an intervenor who has filed written evidence, Ms. Dingwell may be subject to cross-examination on this evidence by parties who are adverse in interest to her.

The Board is of the view that Ms. Dingwell's request should be granted. Ms. Dingwell is required to file this evidence with the Board and serve a copy on all parties prior to the commencement of the oral hearing.

Ms. Fuller's Photographs

During the pre-hearing planning conference held in November in New Brunswick, Ms. Fuller passed some photographs to a member of the Board's staff. Despite being advised of the procedure for filing late evidence, the photographs were not accompanied by a letter seeking permission to file the photographs late, or an explanation as to why these photographs could not have been filed in a timely manner. No explanation as to the relevance of these photographs to the issues before the Board was provided.

While in New Brunswick, the Board visited a number of locations suggested by parties to better their understanding of the evidence submitted. The majority of the locations in these photographs were visited by the Board. The Board is of the view that the probative value of these photographs does not outweigh the prejudice of introducing late intervenor evidence at this time in the proceeding. Accordingly, the photographs will not form part of the record in this proceeding and will be returned to Ms. Fuller.

Mr. Robichaud's Request to File Late Evidence

Mr. Robichaud has indicated in his 13 October 2006 letter that he was unable to find a specialist to complete a report for him until early in October. No report was attached to that letter, nor was a description of the subject matter or content, the name of the author or any other details related to the report. However, on 19 October 2006, Mr. Robichaud submitted, to the Board, a report by Accufacts entitled "*Commentary on the Risk Analysis For the Proposed Emera Brunswick Pipeline Through Saint John, NB*".

The Board has before it Mr. Robichaud's explanation of why he was not able to file the report earlier. It also has before it the report itself. However, before ruling on the admission of the report as late intervenor evidence, the Board has decided that it would like to hear comments from the Applicant, Emera Brunswick Pipeline Company (EBPC), regarding the admission of this report onto the record as late intervenor evidence.

Accordingly, EBPC is directed to file comments, if any, with the Board and serve a copy on Mr. Robichaud by no later that **5:00 p.m. Calgary time, on Tuesday 24 October 2006**.

Mr. Robichaud is directed to file a response, if any, with the Board and serve a copy on EBPC and its counsel by no later that **5:00 p.m. Calgary time, on Thursday 26 October 2006**.

APPENDIX 8: Board Ruling on Dr. Thomas's Request to Revisit the Scope of the Project (9 November 2006, Transcript Volume 4, lines 5409-5427)

Dr. Thomas seeks to revisit the scope of the Brunswick Pipeline project to include the Canaport LNG Terminal in concert with the proposed Brunswick Pipeline to form one project as a whole to be considered under CEAA.

Emera's counsel, Mr. Smith objects on the basis that the Board in its capacity as a responsible authority under the Canadian Environmental Assessment Act has already determined with other responsible authorities the scope of the Brunswick Pipeline and the cumulative effects that can be considered.

On June 23rd, 2006, Exhibit A-3, the Board determined the scope of the Brunswick Pipeline project. On that date the Board also set out that cumulative effects including the Canaport LNG Terminal and tanker traffic could still be considered to the extent that those effects are relevant as cumulative effects that are likely the result from the project in combination with other projects or activities that have been or will be carried out.

In a subsequent ruling addressing an outstanding information request dated the 21st of September, 2006 Exhibit A-27 the Board set out the process for cumulative environmental effects assessment. The Board takes this opportunity to reiterate how this process works. The approach to accumulative effects assessment reflected in Guide A, Section A.2.6 of the National Energy Board's filing manual is to undertake the following sequential steps.

One, identify the potential effects for which residual effects are predicted for the project being assessed. Residual effects are those which would still exist after any mitigation is applied.

Two, for each biophysical element where residual effects are identified, determine the spatial and temporal boundaries that will be used to assess the potential cumulative effects.

Three, identify other projects and activities that have occurred or are likely to occur within the residual effects boundaries. And identify whether those projects and activities will produce effects on the biophysical element within the identified boundaries.

Four, consider whether the effects in three as just identified act in combination with the project's residual effects and if so include those projects or activities in the cumulative effects assessments.

And then five, analyze the cumulative effects of the proposed project in combination with other projects and activities for each biophysical element.

This includes considering the residual effects of the proposed project in combination with the effects of other projects and activities and considering whether the proposed project is incrementally responsible for adversely affecting a biophysical element beyond an acceptable point, for example threshold.

The manual also states that the level of effort and scale of the cumulative environmental effects assessment should be appropriate to the nature of the project under assessment, its potential residual effects and the environmental in socioeconomic setting.

The Board also wishes to emphasize that one of the purposes of the Canadian Environmental Assessment Act as set out in paragraph 4(1)(b.1) is to ensure that responsible authorities carry out their responsibilities in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process.

As noted in the Board's June 23rd, 2006 letter the Canaport LNG Terminal including the LNG tanker traffic has already undergone an environmental assessment by Federal authorities under the CEAA Act and by provincial authorities. That assessment is publicly available on CEAA's online registry. Therefore in carrying out its cumulative environmental effects assessment of the Brunswick Pipeline the Board must ensure that it is not being duplicative of environmental assessment processes already undertaken.

And that it is the potential residual effects of the Brunswick Pipeline being assessed. The Board's consideration of other projects is only in the context of whether those other projects have effects that have the potential to act in combination with the Brunswick Pipeline's residual effects.

Further the nature of the Brunswick Pipeline project and its potential residual effects also inform the level of effort and scale of the cumulative effects assessment.

It is within this context that the Board can consider LNG Terminal or LNG tanker traffic to the extent that they act in combination with any residual effects of the Brunswick Pipeline.

The Board is of the view that Dr. Thomas' line of question does not fall within this context. Furthermore, Dr. Thomas' concern with respect to the EIS completed for the LNG Terminal cannot be addressed in this proceeding. The Board was not an RA for that project.

In addition the Board reiterates its comments on the scoping document that assessment of a project under the CEAA Act is to occur at the proposal stage. The environmental assessment for that facility has been completed. This is not the appropriate forum for Dr. Thomas to challenge the adequacy of the LNG Terminal EIS.

As a result the Board upholds Mr. Smith's objection to Dr. Thomas' questioning and we will hear from Mr. Court again beginning tomorrow at 9:00 a.m.

APPENDIX 9: Board Ruling on Ms. T. Debly's Notice of Motion to Require EBPC to Respond to Information Requests (IRs), Ruling Number 7 (Letter dated 21 September 2006)

On 7 September 2006, Ms. Debly filed a Notice of Motion to require EBPC to respond to certain IRs submitted by her and by the Estate of A.J. Debly. In addition, she requested an extension to the deadline for filing her evidence until 15 days after EBPC responded to these IRs. The Board sought comments from EBPC and Ms. Debly before making its determination, and received comments from EBPC dated 13 September 2006 and from Ms. Debly dated 18 September 2006.

Criteria for Responding to Information Requests

Before coming to the views of the Board with respect to the motion, it may be helpful to set the information request process into the context of the Board's overall role as a decision-maker.

While the Board is not formally bound by the rules of evidence, it may not take into account facts that have no logical connection to the decision it has to make, nor fail to take into account relevant and material facts. Relevant facts are provided in a number of ways, including through the application, through evidence filed in support of the application, and through responses to information requests posed by the Board or by parties to a proceeding, or through evidence filed by other parties to the proceeding.

Sections 32 to 34 of the *National Energy Board Rules of Practice and Procedure, 1995* (the Rules) deal specifically with the information request process. These rules provide that in response to an information request, a party must provide one of the following: a full and adequate response to the information request; a statement setting out the objection to responding and the grounds therefore; or a statement that the information is not available, setting out the reasons for the unavailability and the alternative available information that may be of assistance.

With respect to the general purpose of information requests and the criteria used to decide when an applicant will be directed to respond to a request, the Board has previously stated:

> The Board process allows for the use of written information requests for a number of reasons. Applications before the Board require the consideration of substantial information, much of it of a detailed and technical nature. Often this information is not conducive to an examination by the oral cross-examination process. Parties are therefore encouraged to obtain and examine such information through the established information request process. This process can be used to obtain the evidence necessary to test and explore the Applicant's case and, in the case of Intervenors, to assist them in preparing their cases.
>
> … When the parties cannot agree on the appropriateness of the Information Request or the adequacy of a Response, the Board is asked to provide direction. When considering such a motion, the Board looks at the relevance of the information sought, its significance and the reasonableness of the request. It seeks to balance these factors to ensure that the purposes of the Information Request

> process are satisfied, while ensuring that an Intervenor does not engage in a "fishing expedition" that could unfairly burden the Applicant. [25]

The criteria of relevance, significance and reasonableness have been applied in a number of proceedings before the Board.[26]

In determining whether the information sought to be elicited through the information request process in this proceeding should be provided, the Board is of the view that a similar analysis should be undertaken; looking at whether the information requested is relevant, whether it is significant (or probative) and whether the request is reasonable, and balancing these factors to ensure that the purpose of the information request process has been satisfied.

Cumulative Environmental Effects Assessment

In addition to the criteria set out above, as the IRs are raised in the context of the Board's letter on the Environmental Assessment Scoping Document, dated 23 June 2006, some discussion of how cumulative effects assessments are carried out in the Board's process is useful. The approach to cumulative effects assessment reflected in Guide A, Section A.2.6 of the National Energy Board's Filing Manual (the Manual) is to undertake the following sequential steps:

Identify the potential effects for which residual effects are predicted for the project being assessed (residual effects are those which would still exist after any mitigation is applied);

For each biophysical element where residual effects are identified, determine the spatial and temporal boundaries that will be used to assess the potential cumulative effects;

Identify other projects and activities that have occurred or are likely to occur within the residual effects boundaries and identify whether those projects and activities will produce effects on the biophysical element within the identified boundaries;

Consider whether the effects in (3) act in combination with the project's residual effects and if so, include those projects or activities in the cumulative effects assessment; and then

Analyze the cumulative effects of the proposed project in combination with other projects and activities for each biophysical element; this includes considering the residual effects of the proposed project in combination with the effects of other projects and activities and considering whether the proposed project is incrementally responsible for adversely affecting a biophysical element beyond an acceptable point (*i.e.*, threshold).

The Manual also states that "The level of effort and scale of the cumulative environmental effects assessment should be appropriate to the nature of the project under assessment; its potential residual effects; and the environmental and socio-economic setting."

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[25] Westcoast Energy Inc. (GH-5-94), Transcript volume 3 (8 February 1995), at 340 -342.

[26] For example, the Board's Letter Decision dated 5 September 2002 on Westcoast Energy Inc.'s Southern Mainline Expansion Project (GH-1-2002) and the Board's Letter Decision dated 14 February 2003 on Sumas Energy 2, Inc.'s application for an international power line (EH-1-2000).

The Board also wishes to emphasize that one of the purposes of the *Canadian Environmental Assessment Act* (CEA Act), as set out in paragraph 4(1)(b.1), is "to ensure that responsible authorities carry out their responsibilities in a coordinated manner with a view to eliminating unnecessary duplication in the environmental assessment process." As noted in the Board's

23 June 2006 letter, the Canaport™ LNG facility, including its environmental effects on air quality, has already undergone an environmental assessment by federal authorities under the CEA Act and by provincial authorities. That assessment is publicly available on the Canadian Environmental Assessment Agency's online registry.

Therefore, in carrying out its cumulative environmental effects assessment of the Brunswick Pipeline, the Board must ensure it is not being duplicative of environmental assessment processes already undertaken; and that it is the potential residual effects of the Brunswick Pipeline that are being assessed. The Board's consideration of other projects is only in the context of whether those other projects have effects that have the potential to act *in combination* with the Brunswick Pipeline's residual effects. Further, the nature of the Brunswick Pipeline project and its potential residual effects also inform the level of effort and scale of the cumulative effects assessment. It is within this context that the Board can consider terminal or tanker traffic *to the extent that they are relevant* as cumulative environmental effects that are likely to result for the Brunswick Pipeline in combination with other projects or activities that have been or will be carried out.

Specific Information Requests

IR EOD 1.3

The Board is of the view that IR EOD 1.3 from the Estate of A.J. Debly has been sufficiently responded to by EBPC in its responses. Accordingly, the Board will not direct EBPC to further respond to this IR.

IRs TD 1S.12, TD 1S.13, TD 1S.17 and TD 1S.18

Based on the context noted in the previous section, and balancing the three criteria of relevance, significance and reasonableness set out above, the Board is of the view that these IRs seek information that does not appear to be sufficiently significant or probative to the Board's assessment of the cumulative effects of the Brunswick Pipeline to require EBPC to undertake a further response to these IRs.

However, the Board notes that Ms. Debly and the Estate of A.J. Debly may submit, as part of their own evidence, any evidence they feel is relevant to the cumulative environmental effects assessment and the Brunswick Pipeline's impact on air quality.

IRs TD 1S.15, TD 1S.16, and TD1S.20 to 1S.22

With respect to IRs 1S.15, 1S.16, and 1S.20 to 1S.22 of Ms. Debly's IRs, the Board is of the view that the information requested is not sufficiently significant or probative to the Board's consideration of EBPC's application to require EBPC to provide a further response to these IRs.

In the Board's view, the information sought appears to relate primarily to the broad issue of global greenhouse gas emissions, and their environmental effects. For example, the environmental effects of upstream LNG production in another country do not have the ability to act cumulatively with the environmental effects of the Brunswick Pipeline except on a global level. A focused and accurate assessment of these environmental effects is not feasible. As noted in the Manual, some spatial and temporal boundaries to the cumulative effects assessment have to be utilized.

In addition, in the Board's view, calculating the emissions of upstream LNG production or determining the end use(s) of gas transported on the Brunswick Pipeline regardless of the site of the LNG production or the end use of the gas would not be helpful to the determination it must make.

Considering these environmental effects would be a difficult exercise of little, if any, probative value. It is too broad, too speculative and of too little utility to be useful for the section 52 determination to be made by this Board. As a result, the Board will not direct EBPC to respond further to IRs 1S.15, 1S.16, and 1S.20 to 1S.22.

Conclusion

For the foregoing reasons, the Board hereby denies Ms. Debly's motion requesting EBPC to further respond to her and the Estate of A.J. Debly's IRs, and for a 15-day extension to Ms. Debly's deadline for filing written evidence.

Appendix VIII

Government Response to the National Energy Board Environmental Assessment Report

GOVERNMENT RESPONSE TO THE RECOMMENDATIONS CONTAINED IN THE REPORT OF THE NEB REVIEW PANEL ON THE BRUNSWICK PIPELINE PROJECT

Emera Brunswick Pipeline Company (EBPC) filed an application with the National Energy Board (NEB) for a Certificate of Public Convenience and Necessity (Certificate) under section 52 of the *National Energy Board Act (NEB Act)* to construct and operate the Brunswick Pipeline Project (the project).

The principal purpose of the project is to connect the Canaport Liquefied Natural Gas (LNG) terminal (currently under construction at Mispec Point, New Brunswick) to the U.S. portion of the Maritimes and Northeast Pipeline (MNP) at the international border near St. Stephen, New Brunswick.

The project will consist of approximately 145 km of 30-inch pipeline. The pipeline will serve markets in the U.S. northeast and provide for additional supplies of natural gas in New Brunswick and Nova Scotia through arrangements such as swaps or back-haul transportation service.

The need for a Certificate under section 52 of the *NEB Act* resulted in the requirement for an environmental assessment (EA) of the project pursuant to paragraph 5(2)(a) of the *Canadian Environmental Assessment Act* (*CEA Act*). Other requirements include subsection 35(2) *Fisheries Act* authorizations from the Minister of Fisheries and Oceans, approvals under the *Navigable Waters Protection Act* from the Minister of Transport Canada, and a Disposal at Sea permit under the *Canadian Environmental Protection Act* (1999), from the Minister of the Environment.

The need for any such authorizations, approvals or permits under the *Fisheries Act* , the *Navigable Waters Protection Act* , and the *Canadian Environmental Protection Act,* 1999, also results in the requirement for an environmental assessment pursuant to paragraph 5(1)(d) of the *CEA Act*.

On May 4, 2006, the Minister of the Environment referred the Brunswick Pipeline Project to a substituted NEB Review Panel. The NEB process was substituted for an EA by a review panel as provided for under section 43 of the *CEA Act*. This was the first application of the substitution provisions of the *CEA Act* since the proclamation of the original Act in 1995. The substitution was approved on a pilot basis.

The panel conducted a review of the environmental effects of the project in accordance with the requirements of the *CEA Act*. The panel also assessed the requirements of the *NEB Act*. This includes an assessment of the technical, safety and economic aspects of the project.

The panel released its report on April 11, 2007, concluding that the project is not likely to result in significant adverse environmental effects provided the panel's recommendations are implemented and appropriate mitigation measures identified during the course of the review is applied. The panel recommended that the project be allowed to proceed to regulatory and departmental decision-making as long as the recommendations in its report are made part of the requirements of any approval by the NEB.

Pursuant to subsection 37(1.1) of the *CEA Act*, Responsible Authorities (RAs) shall take into consideration the panel's report and, with the approval of the Governor-in-Council, respond to it. The purpose of this government response is to fulfill this requirement.

All recommendations have been accepted within the context of the Government of Canada mandate. Federal departments are committed to working with the NEB and the Province of New Brunswick in implementing the recommendations based on jurisdictional responsibilities. It is understood that EBPC will develop the necessary plans, and other mitigation measures and follow-up programs identified in the recommendations, in consultation with those expert federal departments with a mandated responsibility and interest.

Following the approval of this response, the panel will decide whether to issue a Certificate under the *NEB Act* . The issuance of a Certificate under section 52 of the *NEB Act* will be subject to Governor-in-Council approval.

RECOMMENDATIONS IN THE REVIEW PANEL REPORT

It is recommended that in any Certificate that the NEB may issue, the following recommendations be attached as conditions of approval.

Recommendation A: General

EBPC shall implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations and procedures for the protection of the environment included or referred to in its application or as otherwise agreed to during questioning or in its related submission.

Response A

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation B: Environmental Protection Plan

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a project-specific Environmental Protection Plan (EPP). This EPP shall be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in EBPC's application for the project, subsequent filings, evidence collected during the hearing process, or as otherwise agreed to during questioning or in its related submissions. The EPP shall describe the criteria for the implementation of all procedures and measures, and shall use clear and unambiguous language that confirms EBPC's intention to implement all of its commitments.

Construction shall not commence until EBPC has received approval of its EPP from the Board.

The EPP shall address, but is not limited to, the following elements:

1) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all project phases and activities;

2) site-specific construction plans for wetlands where they cannot be avoided;

3) site-specific plans for habitat harbouring Species at Risk and of Conservation Concern where it cannot be avoided;

4) project-specific acid rock drainage mitigation measures;

5) a construction and reclamation plan for Rockwood Park with evidence demonstrating consultation with stakeholders;

6) a reclamation plan which includes a description of the condition to which EBPC intends to reclaim and maintain the right of way once the construction has been completed, and a description of measurable goals for reclamation; and,

7) evidence of consultation with relevant regulatory authorities that either confirms satisfaction with the proposed mitigation or summarizes any unresolved issues with the proposed mitigation.

Response B

The Government of Canada accepts this recommendation with the understanding that the pre-construction field studies and surveys, which inform preparation of the EPP, will be completed by EBPC to the satisfaction of the appropriate federal departments. In considering the field study and survey results, it is further understood that expert federal departments must confirm the adequacy of proposed mitigation and follow-up details including provisions for compliance with Section 79 of the *Species at Risk Act*.

Based on evidence filed at the hearings, the Government of Canada further suggests that the EPP also include, but not be limited to, the following elements:

- **site-specific plans for old-growth, mature and interior forest habitats for migratory birds where such habitats cannot be avoided; and,**
- **provisions for protecting populations or individuals or species at risk, species of conservation concern and migratory birds.**

Recommendation C: Environmental Follow-Up Programs

EBPC shall file with the Board for approval, at least sixty (60) days prior to construction, a description of planned follow-up programs as required by the *Canadian Environmental Assessment Act*. The programs shall be designed to verify the accuracy of the environmental assessment predictions and to assess the effectiveness of mitigation for:

- fish and fish habitat as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- wetlands as outlined in the Brunswick Pipeline Project Environmental and Socio-Economic Assessment (Volume 1);
- access management as detailed in the Access Management Plan (recommendation G);
- horizontal directional drill (HDD) noise management (recommendation I); and,
- reclamation of Rockwood Park (recommendation B(3)).

Copies of all correspondence demonstrating consultation with the appropriate regulatory agencies and stakeholders shall be included in the submission to the Board.

These descriptions of follow-up programs shall include a schedule for the submission of follow-up reports to the Board.

Response C

The Government of Canada accepts this recommendation and further suggests that specific allowance be made to include other valued ecosystem components, such as species at risk, species of conservation concern, and migratory birds, subject to review of completed field studies and surveys and the expert opinion of federal departments.

Based on evidence filed at the hearings, the Government of Canada further suggests that the wetland follow-up program be designed to address effects that may endure beyond EBPC's proposed 5-year monitoring period and that the determination of appropriate compensation for unavoidable losses be established independent of the amount of time required for natural revegetation.

Recommendation D: Traditional Ecological Knowledge Study Recommendations

EBPC shall file with the Board, at least sixty (60) days prior to construction, an update on the implementation of the six recommendations identified in the Traditional Ecological Knowledge Study (July 2006).

Response D

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation E: Construction Inspection Program

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a construction inspection program. The program shall include:

1) a preliminary list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, and decision-making authority;

2) a discussion of how many changes to the items outlined in (1) would be determined during the course of construction; and,

3) the reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety.

Response E

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation F: Archaeological Studies and Monitoring Plan

EBPC shall consult with the Archaeological Services Unit of New Brunswick on further studies and a monitoring plan for areas with high potential for heritage resources, once the locations for the detailed right of way, facility sites and temporary work space have been determined. EBPC shall file with the Board, at least thirty (30) days prior to construction:

1) for approval, a report that documents how archaeological and heritage resources within the detailed route have been identified, recorded and mitigated;

2) copies of any correspondence from, or a summary of any discussions with the Archaeological Services Unit of New Brunswick regarding the acceptability of EBPC's report and proposed mitigation measures; and,

3) for approval, a copy of any proposed monitoring plan.

Response F

The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees. This recommendation is under the jurisdiction of the province of New Brunswick.

Recommendation G: Access Management Plan

EBPC shall file with the Board for approval, at least thirty (30) days prior to construction, a project-specific Access Management Plan that includes:

1) EBPC's goals and measurable objectives regarding the Access Management Plan;

2) the methods and procedures to be used to achieve the mitigation goals;

3) the criteria to determine if the mitigation goals have been met;

4) the frequency of monitoring activities along the right of way;

5) a description of the adaptive measures that will take place in the event that access management measures are ineffective; and,

6) evidence of consultation with relevant regulatory authorities and landowners that either confirms satisfaction or summarizes any unresolved issues with the proposed mitigation.

Construction shall not commence until EBPC has received approval of its Access Management Plan from the Board.

Response G

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

The proponent shall prepare an Access Management Plan in consultation with the appropriate expert federal authorities in a matter consistent with their mandated responsibilities and interests.

Recommendation H: HDD (Horizontal Directional Drilling) Noise Management Plan

EBPC shall file for approval, at least ninety (90) days prior to the start of the HDD activity proposed for the Saint John River Crossing, a detailed noise management plan containing information on day-time and night-time HDD operations at the drill exit and entrance sites, including but not limited to the following:

1) ambient sound levels at noise-sensitive areas close to the HDD exit and entrance sites to establish a baseline for assessing potential noise impacts;

2) predicted noise level at the most affected residences caused by HDD without mitigation;

3) proposed HDD noise mitigation measures, including but not limited to the following:

i) all technologically and economically feasible mitigative measures as presented in Section 5.1.7 of the Environmental and Socio-Economic Assessment (Jacques Whitford, 2006) and in the Resource Systems Engineering assessment;

ii) the use of full enclosures on diesel powered units;

iii) the use of quiet machinery (where feasible);

iv) the undertaking of HDD activities during periods where residential windows would be expected to be closed (i.e., during winter months);

4) predicted noise level at the most affected residences with implementation of the mitigation measures;

5) noise contour map(s) showing the potentially affected residences at various noise levels;

6) a noise monitoring program, including locations, methodology and schedule;

7) confirmation that residents potentially affected by HDD noise will receive contact information for EBPC in the event they have concerns about the HDD noise;

8) a contingency plan with proposed mitigative measures for addressing noise complaints, which may include the temporary relocation of specific residents; and,

9) confirmation that EBPC will provide notice to nearby residents in the event that a planned blowdown is required and that planned blowdowns will be completed during day-time hours whenever possible.

Response H

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation I: Saint John River Crossing

EBPC shall construct the crossing(s) of the Saint John River using the HDD method or, if this is not feasible, shall apply to the Board for approval of an alternative crossing technique and include an environmental assessment of the proposed alternative with its application.

Response I

The Government of Canada accepts this recommendation. The proponent is further advised that any project change or modification that may require a disposal at sea permit pursuant to the *Canadian Environmental Protection Act*, 1999, will require an environmental assessment under the *Canadian Environmental Assessment Act*.

Recommendation J: Archaeological or Heritage Resource Discovery

EBPC shall notify the Board, at the time of discovery, of any archaeological or heritage resources and, as soon as reasonable thereafter, file with the Board for approval a report on the occurrence and proposed treatment of the archaeological/heritage resources, any changes to the archaeological/heritage monitoring plan, and the results of any consultation, including a discussion on any unresolved issues.

Response J

The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees. This recommendation is under the jurisdiction of the province of New Brunswick.

Recommendation K: Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, an Emergency Procedures Manual (EPM) for the Project and shall notify the Board of any modifications to the plan as they occur. In preparing its EPM, EBPC shall refer to the Board letter dated 24 April 2002 entitled "Security and Emergency Preparedness Programs" addressed to all oil and gas companies under the jurisdiction of the National Energy Board.

Response K

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

The proponent shall prepare an Emergency Procedures Manual in consultation with the appropriate expert federal departments in a manner consistent with their mandated responsibilities and interests.

Recommendation L: Consultation on Emergency Procedures Manual

EBPC shall file with the Board, at least sixty (60) days prior to operation, evidence of consultation with stakeholders identified in the EPM, including a summary of any unresolved issues identified in consultations, and evidence that the EPM addresses, to the extent possible, any issues raised during consultation.

Response L

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

The proponent shall prepare an Emergency Procedures Manual in consultation with the appropriate expert federal authorities in a matter consistent with their mandated responsibilities and interests.

Recommendation M: Emergency Response Exercise

1) Within six (6) months after commencement of operation of the Project, EBPC shall conduct an emergency response exercise with the objectives of testing:

- emergency response procedures;
- training of company personnel;
- communications systems;
- response equipment;
- safety procedures; and,
- effectiveness of its liaison and continuing education programs.

2) EBPC shall notify the Board, at least thirty (30) days prior to the date of the emergency response exercise, of the following:

- the date and location(s) of the exercise;
- the participants in the exercise; and,
- the scenario for the exercise.

3) EBPC shall file with the Board, within sixty (60) days after the emergency response exercise outlined in (1), a report on the exercise including:

- the results of the exercise;
- areas for improvement; and,
- steps to be taken to correct deficiencies.

Response M

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation N: Emergency Response Exercise Program

Within six (6) months after commencement of operation of the Project, EBPC shall file with the Board a description of the company's emergency response exercise program, including:

- the frequency and type of exercises (full-scale, table-top, drill) it plans to conduct; and,
- how the results of any emergency response exercises will be integrated into the company's training and exercise programs.

Response N

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation O: Post-construction Environmental Reports

Within six (6) months following commencement of operation of the Project, and on or before the 31st of January following each of the second (2nd) and fourth (4th) complete growing seasons following commencement of the operation of the Project, EBPC shall file with the Board a post-construction environmental report that:

1) identifies on a map or diagram any environmental issues that arose during construction;

2) provides a discussion of the effectiveness of the mitigation applied during construction;

3) identifies the current status of the issues identified, and whether those issues are resolved or unresolved; and,

4) provides proposed measures and the schedule EBPC shall implement to address any unresolved issues.

Response O

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.

Recommendation P: Environmental Follow-Up Program Reports

EBPC shall file with the Board, based on the schedule referred to in Recommendation C, the report(s) outlining the results of the follow-up programs.

Response P

The Government of Canada accepts this recommendation. The NEB has recommended that this become a condition of approval for any certificate it may issue. The Government of Canada agrees.